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Enquête Nationale Périnatale

Report 2021

Births, 2-Month follow-up and Establishments

Situation and trends since 2016

October 2022

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Births, 2-Month Follow-Up, and Establishments
Situation and Trends since 2016

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Preface to the 2021 ENP

This report describes the health status of mothers and newborns, their characteristics, medical practices during pregnancy and at the child's birth, and the characteristics of the places where babies are born in France. As in the preceding surveys, these results present a description of the perinatal situation in 2021 and the changes since the last national perinatal survey (ENP) in 2016.

The 2021 version of the ENP is enriched with a follow-up at 2 months post partum of the women who agreed to participate. This enables us to describe for the first time the health status of mothers at this time point, their experience of their childbirth, the organization of their return home, and the infant's health status for the first 2 months of life. The 2021 ENP data are also being linked to those of the National Health Data System (SNDS) for subsequent analyses.

This survey was funded and implemented by three directorates of the Ministry of Health and Prevention: the directorate-General for health (DGS), the Directorate of Health Care Supply (DGOS), the directorate for Research, Studies, Assessment and Statistics (DREES) and the National public health agency (Santé publique France), and the National Institute for Health and Medical Research (Inserm) ÉPOPé team. The follow-up of mothers and neonates at 2 months was led by Santé publique France.

This report was written by the obstetric, perinatal, and pediatric epidemiology research team (ÉPOPé) of Inserm, in collaboration with the DREES, Santé publique France, and the members of the steering committee.

In the overseas districts and regions (DROM), the 2021 ENP was extended for several weeks (except in French Guyana) under the supervision of Santé publique France and the local regional health agencies (ARS), to obtain enough individuals to produce useful high-quality analyses for each district. A specific report will be issued for each of these districts (2021 ENP, "DROM extension"). Accordingly, only the results of metropolitan (European) France will be discussed in this report, with the exception of part 5, which will present several results concerning the DROM.

This field survey was made possible by the participation of the district maternal and child protection programs (*Protection maternelle et infantile*) (PMI), the perinatal health networks, and the professionals in all of these maternity units.

We thank the doctors and directors of the maternity units who agreed to participate in the survey and received the investigators in their department. Our thanks also go to all those who assisted with this survey, in particular, all the investigators in the maternity wards, the midwives supervising the survey in each facility, and the midwifery schools that agreed to have their students participate in this data collection. We also thank

all of the women who agreed to respond to these questionnaires at the maternity ward and at the 2-month follow-up.

We also offer our thanks to Nelly Beuchée Ravenel, Mélanie Carpentier, Candie Grangé, Anne Leroux, Marion Mottier, the regional coordinators, and to Katiya Madji and Marie Viaud, statisticians, for their collaboration on this survey.

Finally we thank the epidemiologic researchers at INSERM, and especially Béatrice Blondel, Gérard Bréart, and Christiane du Mazaubrun, whose work on the earlier ENPs have made it possible to analyze the perinatal situation in France for more than 25 years.

All information about the survey is available at the website: https://enp.inserm.fr

Content

General framework of the 2021 national perinatal survey

Surveys conducted at regular intervals

These surveys provide indicators about the health of mothers and newborns, and the medical practices and risk factors needed to monitor trends in perinatal health in France. They also present information about particular questions to aid decision support and evaluate health actions during the perinatal period. Before this new 2021 edition, 5 surveys of this type had taken place — in 1995, 1998, 2003, 2010, and 2016, all conducted by INSERM's (French national institute for health and medical research, *Institut national de la santé et de la recherche médicale*), ÉPOPé team (obstetric, perinatal, and pediatric epidemiology research team, *Équipe de recherche en Épidémiologie Obstétricale, Périnatale et Pédiatrique),* directed by Béatrice Blondel (Blondel et al. 2017).

These surveys covered all births — liveborn children and stillbirths — taking place over the equivalent of one week in all French maternity units when the birth occurred at or after at least 22 weeks of gestation and/or when the child weighed at least 500 grams. In all 6 surveys, the information was collected from the maternity unit medical files and from a postpartum interview with each woman before her discharge ("Birth" questionnaire, Appendix 3). For this survey as for those preceding it, data were also collected about the maternity unit characteristics and the organization of care in these facilities ("Establishment" questionnaire, Appendix 5). Moreover, the 2021 version is enriched by a follow-up at 2 months post partum about both mothers and children ("2-month follow-up questionnaire," Appendix 4). This 2-month follow-up used questionnaires administered by internet or telephone for the women who agreed to participate.

The survey in March 2021 enabled us to collect data about 13,631 births to 13,404 women, including 12,939 births and 12,723 women in metropolitan France and 692 births and 681 women in the overseas districts (*départements et régions d'outre-mer)* (DROM). Among these inclusions, 65 women gave birth at home and were then transferred to a maternity ward, and 21 gave birth somewhere else (fire trucks, their own automobiles, etc.).

The survey took place in nearly all 480 French maternity units (in metropolitan France and the DROM), including 8 birth centers (freestanding midwifery units) (6 in metropolitan France and 2 in the DROM).

The 2021 survey took place in an unprecedented health context

It should be noted that this 2021 survey was conducted during the third wave of the COVID-19 pandemic and that the women who gave birth in March 2021 had also been exposed to the pandemic's second wave

(October-December 2020) during pregnancy. This particular context must be considered in interpreting some trends presented in this report, concerning simultaneously the characteristics of the women and their health, especially their psychological health, but also concerning medical practices during pregnancy and childbirth. Specific questions about coronavirus infection during pregnancy and the types of screening at maternity wards were asked in both the "Birth" and "Establishment" components.

Synthesis of results concerning the "Birth" component

The results presented in this report (except for part V) concern only metropolitan France. Specific reports will be issued for each DROM.

The data presented in this report supply reliable estimates for the indicators described and their course since 2016. The participation of practically every maternity unit resulted in a number of births very close to that expected according to the statistics from the hospital discharge summaries (PMSI, *programme de médicalisation des systèmes d'information*); at the same time, the characteristics of the mothers, deliveries, and newborns are similar to those already known through these data.

Nonetheless, we observed divergent results for the women's social, demographic, and anthropomorphic characteristics:

● Characteristics with unfavorable impacts on the course of pregnancy continued to increase. Women's postponement of births to an older age, observed for several decades now, continues, although we know that the risks for mothers and children increase with the woman's age; the proportions of women aged 35-39 years at delivery and those 40 years and older have both increased since 2016 (19.1% in 2021 versus 17.2% in 2016 and 5.4% versus 3.9%, respectively). The increase in overweight and obesity rates is also a cause for concern: in 2021, 23.0% of women were overweight compared with 19.9% in 2016 and more than 14% were obese in 2021 versus 11.8% in 2016.

● The rise in women's educational level also continued, with 59.4% of pregnant women currently having completed at least one year of postsecondary studies (versus 55.4% in 2016) and 22.3% at least 5 such years (versus 17.9% in 2016). The monthly level of household resources also rose. At 1%, the rate of women without health insurance coverage at the beginning of pregnancy was slightly lower than in 2016 (1.4%), as was the rate of women without supplementary health insurance (7.0% in 2021 versus 8.7% in 2016). An improvement was observed in the deprivation index, created from data from the preceding surveys and combining the following variables: not living with a partner, household member receiving active solidarity income (*Revenu de solidarité active*) (RSA), not receiving universal health insurance (*Protection universelle maladie*), and not having housing in their own name (i.e., being neither the owner nor the leaseholder). The percentage of women who had arrived in France less than a year before the birth was significantly lower in 2021 than in 2016. These results should be interpreted in light of the global health context in 2020-2021, which reduced migration.

● Most pregnancies were both wanted and planned. Only 37.9% of women had sought preconception consultation before pregnancy; this percentage increased slightly from 2016 (35.3%).

● Before stopping contraception, fewer women than previously had been using the pill (52.6% in 2021 versus

62.9% in 2016), while more had an intrauterine device (respectively, 14.0% versus 9.5%).

The organization of prenatal care must make it possible to implement a number of prevention measures aimed at improving the health of mothers and children. These measures, especially the provision of information by health care professionals and both targeted and general public prevention campaigns seem to have been successful for some indicators, although others had a limited impact.

● The situation concerning addictions showed improvement. The proportion of women reporting that they smoked during the third trimester fell (12.2% in 2021 versus 16.3% in 2016), as did that of women reporting cannabis use during pregnancy (1.1% versus 2.1%). Around 3% of women reported drinking alcohol during pregnancy. Nonetheless this figure should be taken with precaution because alcohol use is often underreported.

● Although preconceptional folic acid intake has improved since 2016, the percentage of women using it before pregnancy remained low (28.3% in 2021 versus 23.2% in 2016).

● Cervical cancer screening (Pap smears), on the other hand, seemed to be deteriorating. The increase in the percentage of women reporting no screening during the previous 3 years (35.8% in 2021 versus 19.7% in 2016) suggests that prenatal care, which is a special moment in women's medical care, does not always enable screening to catch up for missed monitoring. It is also possible that the health context in 2020 (lockdown and other restrictive measures) impeded women's access to screening.

● Similarly, only 16.0% of women reported having received advice for limiting the transmission of cytomegalovirus (CMV). Guidelines for professionals recommending that they inform women on this topic do not appear to have had much impact.

● Influenza vaccination was offered to 59.0% of women in 2021, and 30.4% were vaccinated for a substantial augmentation over 2016, when only 7.4% of women were vaccinated. These results may well be related to the COVID-19 (Coronavirus disease caused by the pandemic context; vaccination against the coronavirus was not available for most women who gave birth in March 2021.

● Obstetrician-gynecologists remained the professionals most frequently consulted for prenatal follow-up. Nonetheless, for nearly 40% of women, a midwife was the main professional responsible for their prenatal care during the first 6 months of pregnancy. The proportion of midwives in private practice handling this care nearly tripled from 2016 (22.9% versus 8.5% in 2016).

● Although the rate of early prenatal interviews (EPP) has risen since 2016 (28.5%), only 36.5% of women in 2021 reported having one. This interview was most often performed by a midwife (57.5%), especially a midwife in private practice.

● The percentage of women who drafted a birth plan was low, at 10.2%, but it nonetheless increased notably

since 2016 (3.7%).

● Women seemed globally to have had good relationships with healthcare professionals during pregnancy. In 2021 for the first time, the ENP survey assessed a score measuring one of the dimensions of health literacy (motivation and ability to obtain health information, understand it, and use it to promote and maintain good health); only 5.6% of women had difficulties finding information and using it (threshold less than 3.5/5 for the questionnaire module assessed).

● The number of ultrasound examinations continued to rise; 49.0% of women reported 6 or more ultrasound scans during this pregnancy, or at least twice the number recommended. Women reported rises in nuchal translucency measurements (90.2% in 2021 versus 87.0% in 2016) and trisomy 21 screening (90.9% versus 86.5%). The majority of women not receiving trisomy 21 screening had refused it.

The survey data also allowed us to observe the women's health status during pregnancy.

● Women's reaction to discovering their pregnancy was positive in most cases and did not differ from reactions in 2016. On the other hand, their psychological status during pregnancy seems to have been worse, and the 2021 ENP data do not allow us to ascertain the proportion of this related to the pandemic. The proportion of women consulting a health professional for psychological difficulties during pregnancy increased (to 8.9% in 2021 from 6.4% in 2016).

● Among the women included in the 2021 survey, 678 (5.7%) had coronavirus infections during pregnancy, including 40.9% during the second trimester (October through December 2020, corresponding to the second epidemic wave) and 49.2% during the third trimester (January to March 2021, the third wave).

● The proportion of women screened for gestational diabetes grew; 76.1% in 2021 versus 73.2% in 2016. This rate remained higher than expected and suggests that this test is too frequently performed in women who do not correspond to the guidelines' target population. Moreover, the frequency of gestational diabetes, both insulin-dependent and diet-controlled, increased. Explanations may be due to from the increase in screening but also the rising prevalence of important risk factors — maternal age and obesity.

● The frequency of women with hypertension during pregnancy, with or without proteinuria, was stable compared with 2016, around 4%.

● We observed no difference in the distribution of gestational age at birth between 2021 and 2016. The preterm birth rate was stable at 7%. On the other hand, recourse to antenatal corticosteroid therapy for pulmonary maturation fell to 4.8% (versus 5.9% in 2016) with a drop in prescriptions past 34 weeks, in accordance with guidelines. Hospitalizations for threatened preterm delivery were less frequent and their durations shorter. The pandemic context, however, might have played a role in encouraging professionals to shorten or avoid admissions.

As in the preceding surveys, the modes of delivery are described with precision, as are medical practices during labor and delivery.

● The place of delivery continued to evolve: deliveries took place less often in private for-profit maternity units (21.5% in 2021 versus 23.5% in 2016) and in level I maternity units (20.1% versus 22.6%). The proportion of births in maternity units with 3500 or more deliveries per year was stable, as was the number of these establishments (see results for the "Establishment" component).

● Except for induction of labor, which became more frequent (25.8% versus 22.0% in 2016), the reduction in medical interventions aimed at accelerating labor continued: fewer amniotomies (33.2% among the women in spontaneous labor in 2021 versus 41.4% in 2016) and less frequent oxytocin administration (30.0% among the women in spontaneous labor in 2021 versus 44.4% in 2016), consistent with the national guidelines.

● The cesarean rate was stable between the two periods: 21.4% in 2021 and 20.3% in 2016. A previous cesarean delivery remained its principal risk factor. The rate of operative vaginal deliveries also remained stable at around 12%. Midwives attended 88.6% of the spontaneous vaginal deliveries, also stable from 2016 (87.5%).

● The episiotomy rate, which has been decreasing for several decades, fell still more sharply, dropping from 20.1% in 2016 to 8.3% in 2021, in accordance with the national guidelines. This diminution affected nulliparas as well as multiparous women, and spontaneous as well as instrument vaginal delivery. At the same time, we observed an increase in perineal tears, in particular, those that were not severe.

● More than 90% of women received oxytocin after childbirth, to diminish the risk of postpartum hemorrhage, which nonetheless occurred in 11.6% of cases (blood loss of 500 mL or more). Severe postpartum hemorrhages occurred among 3.0% of the women compared with 1.8% in 2016; this significant increase must be explored by specific analyses.

Trends in methods of analgesia used during labor were analyzed, together with their effectiveness and women's satisfaction. The 2021 ENP paid particular attention to women's pain at delivery.

● The rate of local-regional analgesia during labor is very high in France and rose slightly; 82.7% of women had epidural analgesia (versus 81.4% in 2016). This high rate is consistent with women's wishes. Patient-controlled epidural analgesia (PCEA) also increased substantially: 74.2% versus 53.8% in 2016. Nonetheless, we observed that the ability of epidurals to relieve the pain of labor and delivery is imperfect; 19.6% of women considered that it was "a little or partly effective" and 3.6% "totally ineffective." Moreover, women also used nonpharmaceutical methods of pain management for contractions more often while giving birth in 2021 (49.2%) than in 2016 (35.5%). As a whole, women found these methods satisfactory, with more than 90% "satisfied" or even "very satisfied" with the methods used to relieve their pain. Among the women with epidural analgesia, 29.7% of those with a spontaneous vaginal birth reported unbearable pain (rated from 7

to 10 on a scale of 0 to 10), as did 37.8% of those with an operative vaginal delivery. Women with cesareans also reported high pain levels, with 10.4% reporting unbearable pain at the beginning of the procedure.

We note divergent trends for newborn health and hospitalization in the maternity ward after delivery:

● In line with the guidelines of the professional pediatrics societies, significantly fewer bacteriological samples were taken at birth from newborns; they were reduced by a factor of 4 from 2016 (42.8%) to 2021 (10.3%).

● Resuscitation procedures at birth were more frequent in 2021 than in 2016: 7.8% versus 6.3% for ventilation, and 3.2% versus 1.8% for nasal continuous positive airway pressure (CPAP). Nonetheless transfers to the NICU (3.0% versus 2.4%) or neonatology unit (4.5% versus 4.2%) remained relatively stable.

● Nearly 90% of mothers whose child was not transferred had skin-to-skin contact with the child after the birth, in the delivery, operating, or recovery room; specifically, this contact occurred for 96.5% of women with vaginal deliveries and 56.6% of those with cesareans.

● The maternal breastfeeding rate during hospitalization at the maternity ward increased very little from the preceding survey; 56.3% of women gave their children exclusively breast milk in 2021 compared with 54.6% in 2016, and 13.4% did mixed breastfeeding versus 12.5% in 2016. These modes of breastfeeding were lower than initially planned, since before delivery 64.8% said they wanted exclusive breastfeeding and 8.5% mixed feeding.

● The duration of hospitalization in the maternity ward after delivery continued to fall, both among women with vaginal deliveries and those with cesareans. The mean length of stay was 3.7 days in 2021 (versus 4.0 days in 2016). Most often, women remained in the hospital for 3 days after a vaginal delivery and 4 days after a cesarean. The proportion of very short stays - 2 days or less - almost tripled (12.4% in 2021 versus 4.5% in 2016), probably related to the COVID-19 situation.

● At the maternity ward, nearly 50% of women reported that they had not received advice about how their children should be positioned for sleep, or could not know if they had.

Synthesis of the results of the 2-month follow-up

The follow-up at 2 months is one of the innovations of the 2021 ENP; 67.5% of the eligible women responded at 2 months either by internet (71.4%) or telephone (28.6%). The percentages presented in the results have been weighted to take into account the differences between the characteristics of the respondents and those of the women participating at the maternity ward who did not respond at the 2-month follow-up. As this part of the survey is new, no comparisons are possible.

● Three quarters of the women's partners had taken or planned to take time off work (paternity, parental, or annual leave).

● The 2-month follow-up makes it possible for the first time to assess women's mental health at the national level. Major depressive symptoms (Edinburgh Postpartum Depression Scale score ≥13) were observed among 16.7% at 2 months post partum. Moreover, 15.5% of the women had a difficult or very difficult experience of their pregnancy and 11.7% a poor or very poor experience of their delivery.

● *Inappropriate behaviours* were another new theme of the 2021 ENP. Around 10% of women reported being exposed sometimes or often during their pregnancy, delivery, or hospitalization at the maternity ward to inappropriate words or attitudes by care providers, and approximately 7% to inappropriate actions. These concerned all contexts (consultations, ultrasound scans, emergencies, delivery room, epidural placement), but were most frequent during their stay at the maternity ward.

● The women reported that health care professionals did not always ask their consent before performing medical acts (e.g., digital cervical examination) and/or medical interventions (administering oxytocin, performing an episiotomy or an emergency cesarean) during pregnancy and/or at delivery.

● When questioned at 2 months post partum about their satisfaction, more than 90% of women said that they were satisfied or fairly satisfied with their medical care, prenatal care, and delivery.

● After discharge from the maternity unit, 79.1% of women had visits at home from a midwife. More than 80% of the women knew the role of and how to contact the district maternal and child protection (PMI) program. At 2 months, some preventive advice appears to have been correctly dispensed, including how infants should be placed to sleep (supine, on their backs); only 6.7% reported that they had not received advice about the child's sleep position. On the other hand, other types of advice were provided less adequately; for example, less than half the women received advice for calming or soothing a crying child.

● The breastfeeding rate at 2 months was low; 34.4% were breastfeeding exclusively, 19.8% using mixed breastfeeding, and 45.8% feeding their child with commercial formula.

● Around 6% of the women reported experiencing psychological violence before, during, or after pregnancy, and 1.3% had been subjected to physical violence within or outside the family.

The 2021 ENP provides information complementary to the health-related administrative data routinely furnished by, in particular, the discharge summary database (PMSI). The 2-month follow-up is innovative and provides a broader vision of the perinatal period in France. Repeating this survey at regular intervals provides updated data useful for evaluating the actions implemented by the public authorities and accessing the adherence to the clinical practice guidelines issued by professional societies.

Synthesis of the results concerning the "Establishment" component

As for each ENP, maternity unit characteristics were collected from their directors and coordinators by a questionnaire about the establishment.

● In 2021, metropolitan France contained 456 maternity units and 6 birth centers (freestanding midwifery units, included for the first time in 2021), although there had been 497 maternity units in 2016. The results presented cover only the units participating in the ENP (3 refused in 2021 versus 4 in 2016).

● In 2021, the number of level I maternity units fell from 211 to 170. On the other hand, the number of level IIA and IIB units was stable (223 in 2021 and 222 in 2016), as were the level III centers (60 in 2016 and 2021). During the week of the survey, the maternity units with at least 3500 deliveries annually accounted for 15.3% of the deliveries, a percentage similar to that in 2016 (15.6%). Maternity units with fewer than 1000 deliveries a years accounted for 18.7% of deliveries in 2021 and those with fewer than 500 deliveries yearly 2.8%; these percentages have been stable since 2016 (14.9% and 2.6% respectively).

● Despite their diminution between these 2 surveys, 24.1% of maternity units had a private for-profit status; 21.5% of all deliveries were performed in these facilities, down from 23.5% in 2016.

● The global equipment of maternity units has improved. Nearly 90% reported they have an operating room reserved for cesareans within or adjacent to the birth sector (versus 76.0% in 2016).

● The percentage with a pediatrician always on site (24/7, that is, days and nights, during the week and on weekends) increased between the 2 periods (39.4% in 2016 versus 46.8% in 2021), while this percentage was stable for obstetrician-gynecologists, and for anesthesiologist specialists. The mean number of midwives present in the delivery room seems to have increased very slightly during this period.

● The maternity units used temporary staff several times a month: 28.7% for obstetrician-gynecologists, 31.2% for anesthesiologist specialists, 22.1% for pediatricians, and 28.0% for midwives.

● Since 2016, maternity units have developed the availability of specialized consultations. Nearly 88% had access to a consultation for smoking cessation, and 83% for addiction to alcohol and/or medication. We also note that more maternity units had a dedicated social worker in 2021.

● The Maternal and child protection (PMI) programs are closely involved in the work of these establishments: 78.8% of maternity units reported that PMI representatives participate in their multidisciplinary staff

meetings.

● More than 65% of maternity units reported that they often or systematically propose that women write a birth plan. A large proportion of the maternity units have increased and improved the space available for physiological (natural) childbirth.

● They have also strengthened the availability of breastfeeding consultants, although these seem to be most often available only part-time.

● The very great majority of maternity units offer postdischarge home visits by midwives. In particular, almost 89% offer this service through community midwives, outside the framework of the Program of accompaniment to return to home (PRADO program) to support mothers on their return home.

● The organization of the 6 birth centers is different from that of standard maternity units, in accordance with their activity of providing prenatal care and physiological births. Their results are thus presented in separate tables.

Perspectives based on the 2021 ENP data

The ENP data are a source of essential information for the perinatal period (together with, for example, Euro-Peristat and the report on the monitoring of perinatal health in France published in 2022 by Santé publique France). These data play a role in the development and improvement of public policies and clinical practices. As with previous ENP editions, the data collected here will undergo detailed analyses for numerous themes. Some have already begun and will become published articles; these include, for example, addictions, the early prenatal interview, influenza vaccination, the medicalization of childbirth, and postpartum depression.

A subsample of 3500 women who participated in the 2021 ENP agreed to prolong their follow-up by participating in the EPIFANE survey, directed by Santé publique France. The results of this survey concerning food and children's health during their first year of life will be published in 2023. Finally, for the first time, the 2021 data collected will be linked to the national system of health data (*Système national des données de santé*) (SNDS) data. This enrichment of the database will shed a complementary light on perinatal health.

PART I – GENERAL PRESENTATION OF THE NATIONAL PERINATAL SURVEYS (ENP)

I-1 General presentation

1 Introduction

It is a public health imperative to have reliable up-to-date data in the perinatal domain regularly available. These data are essential for following health trends, guiding prevention policies, and assessing medical practices. While the PMSI (medical information system, including discharge summaries) (*Programme de médicalisation des systèmes d'information*) furnishes basic health indicators, they do not allow analysis of all aspects of the perinatal situation. Numerous indicators concerning, in particular, women's characteristics, their experiences, and medical practices are not available.

The volition to conduct a national perinatal survey (*enquête nationale périnatale*) (ENP) at regular intervals was announced by the Ministry of Health in the 1994 Perinatal Plan. Since then, 6 surveys have been performed, in 1995, 1998, 2003, 2010, 2016, and 2021.

These ENPs are based on the principle of the collection of information about a representative sample of births. This sample comprises all births occurring during one week in the maternity units of all districts in France. The choice of this protocol is based on the experience of a pilot survey conducted in 1988-89 in several volunteer regions (Bréart et al., 1991). It showed that it was possible to conduct a survey in maternity units, during a short period, by collecting a small number of items. The 2010 ENP nonetheless enlarged the number of items collected at birth to better meet our partners' objectives and requirements. The 2021 edition has added a follow-up at 2 months post partum and linkage to the national system of health data (*Système national des données de santé*) (SNDS). This database covers health care utilization and medication use, for example, and helps respond to new public health issues. This report will not present the data obtained by linkage, which will be covered by subsequent publications. Moreover, for this edition of the 2021 ENP, data collection in the DROM (overseas districts and regions) *(départements et régions d'outre mer*) continued beyond one week to obtain larger samples for each DROM (except for French Guyana where this extension was not possible). These extensions of the ENP took place under the shared responsibility of Santé publique France and the local regional health agency (Agence régionale de santé, ARS) and will be published separately for each DROM. Finally, among the women who participated in the 2-month ENP follow-up, approximately 3500 also agreed to participate in EPIFANE, an ancillary survey of the 2021 ENP studying food, the children's health during their first year of life, and the mother's health during this period *(Etude longitudinale en France de l'alimentation et de l'état nutritionnel des enfants pendant leur première année de vie)*, also conducted by Santé publique France.

In each edition of the ENP, the maternity ward data for the principal perinatal health indicators were collected in an identical manner and by following international guidelines, in particular, the list of perinatal indicators defined by Euro-Peristat (Euro-Peristat, 2018). This procedure makes it possible to identify the

main strengths and weaknesses of France compared with other countries, especially in Europe (Blondel et al., 2019). The data to be collected are also selected to be consistent with other sources of information to facilitate comparisons between the national survey sample and these other data sources.

The ENP is also useful for estimating needs in prevention, assessing public policies for the perinatal period, and for analyzing the dissemination and adherence to clinical practice guidelines issued by representing health care professional societies. The data to be collected are thus defined before each survey in cooperation with a steering committee (Appendix 1) and public departments and agencies at the national, regional, and district levels, health care professionals, and user associations, as participants in the ENP policy committee (Appendix 2).

I-1-2 Objectives

The principal objectives of this report are to:

- describe the characteristics of maternity units and their internal organization of care;
- describe the principal indicators of women's and infants' health status, perinatal risk factors, psychosocial context of the pregnancy, and medical practices during pregnancy and delivery;
- monitor the trends of the epidemiologic data about pregnancy and childbirth in France, as related to the results of earlier surveys;
- describe the health status of mothers and infants 2 months after the birth;
- contribute information for guiding decision making in public health and assess health actions in the perinatal domain, based on specific questions in each survey;
- furnish representative data at the national scale;
- furnish data for the EPIFANE ancillary survey on food, children's health during the first year of life, and the mothers' health during the same period.

I-2- Methods

I-2-1 Population

The survey took place in metropolitan France and in all 5 DROM (Guadeloupe, French Guyana, Martinique, Mayotte, and Reunion) as well as in Saint-Martin, an overseas community (treated in this report as a DROM at the request of the Guadeloupe ARS). The survey covered all births in public and private maternity units and in birth centers. Children born outside of such facilities (for example, at home) and later transferred to the maternity ward are also included.

Definition of a birth

The survey covered all liveborn children or stillbirths (including medical terminations of pregnancy), if the birth took place at or after 22 weeks of gestation and/or if the newborn weighed at least 500 grams at birth. This definition was used in the earlier surveys and takes into account the principal thereholds recommended by the World Health Organization.

Study calendar

The study includes all births from midnight (00:00) Monday, March 15, 2021, through Sunday, March 21, 2021, at 23:59. To facilitate data collection in the largest maternity units (those with 2000 or more annual births), they could choose to stagger it over 2 weeks by including all births every other day over the 2-week period.

I-2-2 Data collection

Questionnaire for each birth in the maternity unit

The questionnaire contained 4 parts: 1) the mother's social and demographic characteristics and her description of her prenatal care and of the management of the delivery, collected in an interview with the woman, before her discharge from the maternity ward; 2) data related to complications of the pregnancy and at delivery, and the newborn's condition at birth, collected from the medical file; 3) the minimal collection of 13 indicators from the medical file; and 4) a contact form allowing the collection of information useful for follow-up at 2 months and to linkage to the SNDS data of mother and child.

For the survey at the maternity ward, INSERM recruited and trained more than 1300 investigators, essentially midwives but also midwifery students, to include the women, interview them, and collect data from the medical files.

Two types of information were collected during the interview:

- permanent indicators, that is, the perinatal indicators that we wish to collect during each survey: social and demographic characteristics of the couples, medical practices, and the newborns' health status.
- The specific data on themes and topics raising questions at the time of the survey. In 2021, particular attention was thus paid to women's perinatal experiences and psychological health, to health literacy, and to pain management during childbirth.

The survey is based on the principle of non-objection, and letters of information, adapted to each situation (standard, mothers younger than 18 years, situations with maternal or neonatal health problems, and/or

early discharge) were distributed to the women, as well as the other parent: the woman could object to each part of the survey, and the other parent could independently object to data collection about his child.

The data collection included a face-to-face interview with the women during their postpartum hospitalization at the maternity ward and the collection of information from their medical file. If a woman could not or refused to participate in an interview, the collection of information from the medical file was nonetheless performed, unless the mother objected specifically to it. If she did, only the minimal collection of 13 indicators was completed. She could, however, also object to this minimal data collection.

In cases of particular pregnancy outcomes (in utero fetal death or terminations of pregnancy) or anonymous deliveries with planned adoptions, the women were informed of the survey and asked only for the minimal data collection.

Questionnaire at 2 months

In 2021, for the first time, a follow-up at 2 months post partum took place, by internet or telephone, as the woman preferred. This follow-up was offered to all women who had agreed to be interviewed at the maternity ward. This questionnaire allowed her to describe her experience of pregnancy and childbirth, as well as the organization of her return home, both her health and the infant's, and finally information about her partner.

Establishment questionnaire for each maternity ward

The objective of this questionnaire was to describe the place of delivery (size, level of neonatal care, and public/private status), department policies, and the more general environment of births.

This questionnaire was completed by a main investigator at the unit (head medical director on midwife coordination), in collaboration with one of the ENP team's 6 coordinators.

I-2-3 Organization

Survey design and implementation

This survey was conducted under the supervision of the INSERM ÉPOPÉ obstetric, perinatal, and pediatric epidemiology research team (*Équipe de recherche en Épidémiologie Obstétricale, Périnatale et Pédiatrique)*, in collaboration with a steering committee with members from the following departments and agencies (Appendix 1): three directorates of the Ministry of Health and Prevention: the directorate-General for health (DGS), the Directorate of Health Care Supply (DGOS), the directorate for Research, Studies, Assessment and Statistics (DREES) and the National public health agency (Santé publique France), and the National Institute

for Health and Medical Research (Inserm) ÉPOPé team.

The steering committee developed the survey protocol and questionnaires. This work was conducted in association with a policy committee (Appendix 2), including representatives of the districts of the French National Assembly (physicians and midwives from district maternal and child protection (*Protection maternelle et infantile*) (PMI) programs), regional health agencies, regional health observatories, perinatal health networks, hospital federations (*Fédération Hospitalière de France, Fédération des Établissements Hospitaliers et d'Aide à la Personne, Fédération de l'Hospitalisation Privée*), national councils of the orders of physicians and of midwives, the national commission on birth and child health, the national health insurance fund for salaried workers, professional associations (anesthesiologist specialists, obstetricians, pediatricians, midwives), and users.

The INSERM ÉPOPé team finalized the protocol, questionnaires, and documents necessary for the survey.

Maternity ward survey

At the national level, the INSERM ÉPOPé team supervised the coordination of the part of the survey performed in the maternity wards:

- Before the survey: drafting and follow-up of requests for authorization, contact with the obstetrics departments, and estimation of the needs for local coordination and staffing, composition of documents useful for the survey (especially the training guides for the district coordinators and for the investigators), management of recruitment and of training of district coordinators and/or investigators.
- During the survey: support for the district coordinators and investigators, monitoring the successful performance of the data collection at the national level.
- After the survey: centralization of all questionnaires, verification of the exhaustiveness of the collection and quality of the data, preparation for data entry by optical reading, and data treatment.

At the district level, the coordination of maternity part portion of the survey was managed by one or more personnel from the PMI and/or from the local perinatal health network, and/or a regional health agency, and/or an ÉPOPé coordinator. The responsibility of the district coordinator was to supervise the progress of the survey locally, in association with the INSERM ÉPOPé team: contact with the district maternity units to request their agreement to participate, recruitment of a midwife to serve as the in-house study coordinator in each establishment, support for the recruitment and training of investigators, monitoring data collection with the in-house coordinator, verification of the exhaustiveness of the collection, centralization of questionnaires, and transmission to the INSERM ÉPOPé team. In view of the health context, all training took place by videoconferences, and tutorials reviewing the key stages of the protocol were recorded and made available to the investigators.

In each maternity ward, the in-house coordinator (most often one of the midwife-coordinators) served as the liaison between the district coordinator and the investigators. This person supervised the smooth running of the data collection in that maternity ward and any necessary contacts with the district coordinator.

During the survey week, the duties of the midwife-investigators at each maternity unit included: identifying all births meeting the inclusion criteria, informing the women and their partner about the survey and obtaining their lack of objection to participation in the study, collecting the data in accordance with the protocol (interview, contact form, collection of the woman's medical file data and minimal data), and transmitting the questionnaires as well as a summary sheet to the in-house coordinator. This coordinator had several responsibilities: entry of the data from the contact form about each woman's agreement/lack of objection to be recontacted in 2 months and/or about data linkage for herself and/or the child on a dedicated secure website. Another task was to verify the exhaustiveness of inclusions in that facility and then send all of the questionnaires to the district coordinator. The questionnaires were then transmitted by tracked letter to INSERM.

We note that both envelopes from one maternity ward were lost after mailing. The 23 women concerned were notified directly by the maternity ward, and a declaration of loss made to the National Data Protection Authority (*Commission nationale de l'informatique et des libertés, CNIL*). Only the medical file data were collected again for these women. Moreover, 6 eligible women were not identified during one maternity unit's survey week. Their inclusion was thus delayed; they were informed of the study during the summer of 2021; for those who did not object, only the medical file data were collected.

The investigator training and the distribution of instruction documents ensured homogeneity between the maternity units in the data collection and guaranteed a level of data quality. The ÉPOPé team first checked data quality by rereading each paper questionnaire.

Survey at 2 months

The 2-month follow-up was managed by Santé publique France (data treatment and quality control) in collaboration with IPSOS.

The questionnaire was administered to the women who had been interviewed at the maternity ward in March and had agreed then to be recontacted 2 months later. The midwife investigators had collected their email address and/or their telephone number and their preference for responding to the questionnaire by internet or telephone. In the days before the child reached the age of 2 months, the women received an invitation by email to complete the questionnaire through a secure link or were contacted by a telephone interviewer trained specifically for this part of the survey.

In the case of a partial or no response, reminders were sent by email and telephone at regular intervals,

regardless of the method of administration chosen. The women could choose to respond over several sessions and could refuse to participate at any time. Moreover, the method of administration could change as women chose during their response. Thus, some women completed the questionnaire by both internet and telephone. The mode of administration reported is the last one each woman used.

Data checks, analysis, and report writing

A DREES service provider entered the data from the questionnaires collected at the maternity ward and created the electronic file.

The INSERM ÉPOPé team handled the data management and checked the data coherence for the maternity unit data and in collaboration with Santé publique France for the data from the "Birth" questionnaire.

Santé publique France managed the data from the 2-month follow-up and checked data coherence in in collaboration with the INSERM ÉPOPé team. DREES did the statistical treatment of the nonresponses for the 2-month follow-up.

The INSERM ÉPOPé team wrote the report, which the steering committee then validated.

I-2-4 Approvals

The ENP is a public statistical survey. It received the required approvals and authorizations: the national council of statistical information *(Comité national de l'information statistique)* found it was useful and timely on October 14, 2019; the Committee du Label labeled it of general interest and statistical quality (Visa n°2021X701SA, decree dated November 23, 2020); a Patient Protection Committee gave it a favorable review on July 7, 2020, and the National Data Protection Authority (CNIL) authorized it as DR-2020-391 on December 31, 2020.

I-3- Number of participants and data quality

I-3-1 Preliminary information for the DROM

The ENP was extended in the DROM (except for French Guyana, where this extension was not possible) under the supervision of Santé publique France and of the regional health agencies (ARS) of the districts concerned. The objective of these extensions was to obtain a sample of approximately 800 births per district, which would allow specific analyses with statistical power sufficient to understand the dynamics in each area.
As stated in the preface, a report for each DROM, covering the data from the national week and its extension will be issued. This report contains only a description of the establishments and the participation at birth and at 2 months; these will be presented for the DROM as a whole, and then a table for each district, summarizing

several of the women's social characteristics and some medical indicators (Part V). The small number of participants per district for the nationwide study week does not allow comparisons. These DROM data have thus been combined and appear in the tables related to regional comparisons (Tables 48 to 64). In view of the heterogeneity of the districts, however, these results will not be discussed.

I-3-2 Number of participants

Of the 483 maternity units functioning in France, including 459 in metropolitan France, 3 of the latter (all of private for-profit status) refused to participate in the survey. According to the PMSI, these 3 maternity units had a weekly total of 80 births in 2021. In 2016, 4 maternity units among 497 had refused to participate in the ENP.

The total sample included 12,939 births in metropolitan France, including 12,828 live births, and 12,723 women (taking the number of multiple births into account) (Table 1).

The National Institute of Statistics and Economics Studies (INSEE) counted 57,900 live births in metropolitan France in March 2021, or a weekly number of approximately 13,074 live births (on the hypothesis that they were distributed homogeneously over the month). This number is quite similar to the number of live births in the survey.

In metropolitan France, among the 12,939 births during the survey period, 118 involved particular outcomes: medical termination, fetal death, and anonymous delivery with surrender for adoption. The information for the minimal questionnaire was not collected for 5 births (refusals).

Participation in the survey (Figure 1) for the 12,614 women with liveborn infants (n=12,821) can be broken down as follows: 10,913 complete questionnaires (interview and medical file data) or 86.4% of the eligible women (n=11,081 births); 45 women agreed to do the interview but refused the medical data collection (0.3%) (n=47 births); 1130 refused to do the interview but did not object to the collection of information from their medical file (9.0%) (n=1159 births); 435 agreed only to the minimal data collection (3.4%) (n=442 births); and 91 women objected to all parts of the study (0.7%) (n=92 births).

Among the 12,240 births with complete medical data, information about the child is missing for 148 births, because the second parent objected.

Woman could select one or two of the proposed choices as their reasons for nonparticipation in the interview. Among these 1656 women, the 2 principal motives were refusal (61.3%), followed by the mother's lack of French language skills, which made it impossible to conduct the interview (19.0%).

At the end of the interview, 9912 women agreed to participate in the follow-up at 2 months, that is, 90% of the women who had agreed to be interviewed (9912/10,958), and 78.6% of the eligible women (9912/12,614).

The 2-month follow-up questionnaire was completed for 7399 women (7500 births), that is, 74.6% of the women who had agreed to be recontacted (7399/9,912), 67.5% of the women eligible at the maternity ward (7399/10,958 women with an interview). Among all the women included in the 2021 ENP, the participation rate at 2 months was 58.7% (7399/12,614).

I-3-3 Exhaustiveness of the data for live births

Among the 12,614 women who gave birth to at least one liveborn child, 95.8% agreed to participate in this survey (interview and/or medical file data), 3.5% agreed only to the completion of the 14 items of the minimal questionnaire, and 0.7% refused to participate at all (no data).

Data from the maternity ward interviews

Among the 10,958 women (11,128 live births) who agreed to be interviewed, data were missing for only 0.1% to approximately 1% of births for the principal variables describing the women's social and demographic situations, their prenatal care, and their behavior during pregnancy. Only a few items (in particular, pain at delivery and the type of professional present at delivery) had higher percentages of missing data (around 10%).

Data from the women's medical files

As in 2016, only a few data items from the medical files were missing. Among the 12,043 women who did not object to the completion of this part of the questionnaire and the 12,240 corresponding live births, the missing data varied from 0.1% to around 1% for the questions related to their history and complications during pregnancy. The placental location at the end of pregnancy was missing in 3.6% of the files, suspected fetal growth abnormalities in 6.3%, and ultrasound measurements in 10% to 23%, probably explained by the absence of the ultrasound reports from some maternity unit obstetric files.

Globally, the proportion of missing data related to delivery were low and ranged from 0.5% to 1.5%. Nonetheless, some data were exhaustive or nearly so, e.g., fetal presentation, mode of labor onset, and mode of delivery. Others, on the contrary, were missing in considerably more files. These include, for example, 3.6% for modality of membrane rupture and 15.5% for estimation of blood loss at delivery. These percentages are probably explained by the absence of the information in the medical file.

The quantity of data missing for the neonate is slightly higher; this is explained in part by the second parent's exercise of their right to object to its collection: 1.3% for birth weight, 1.7% for 5-minute Apgar, 2.9% for gastric fluid sample, 3.3% for the child's sex, and more than 10% for arterial pH. These percentages of missing data reflect the diversity of practices within the maternity units but also the difficulty of finding information about the newborn in maternity unit obstetric files or even perhaps the layout of the ENP questionnaire,

which could be improved.

Data from the 2-month follow-up

Among the 7399 women who responded to the follow-up questionnaire, 5 women were not included in the analyses because of the infant's health status, and 674 (9.1%) filled out the questionnaire only partially. Globally, missing data were infrequent when the woman completed the entire questionnaire. The part related to the child's health recommended using the child's portable health record to facilitate answering the questions, which appears to have led numerous women to stop completing the form.

Data about the establishments

All the maternity units that agreed to participate in the survey completed the questionnaire during an interview with an ENP coordinator. Accordingly, very few data were missing.

I-3-4 Representativeness of the maternity ward data

To verify the representativeness of the data, INSERM, in collaboration with the DREES, compared the 2021 ENP results with the PMSI statistics for all births from March 15–21, 2021, in metropolitan France. The births in birth centers are not included in the PMSI data.

For most of the indicators compared, the distributions between the 2021 ENP results and the PMSI data for 2021 (Table 2) were very close and allowed us to conclude that the ENP data are representative of the national data for the year.

I-3-5 Degree of precision of the results

The indicators and results presented in this report come from a sample of births during one week and not all of the births in France. They fluctuate within confidence intervals (CI) with the following limits for the risk of an α error of 5%:

- Rates of 1%: ± 0.2%

Some examples: severe perineal lacerations, intubation for the newborn at birth.

- Rates of 5%: ± 0.4%

Some examples: medically assisted reproduction, preterm birth of liveborn singletons.

- Rates of 10%: ± 0.5%

Some examples: obesity (body mass index, BMI ≥ 30), cesarean before labor.

Rates of 20%: ± 0.7%

Some examples: prenatal care by community midwife, cesarean birth.

In this report, the descriptive results for the births and the 2-month follow-up are presented with their 95% CIs.

I-4- Presentation of results

The results of the 2021 ENP are presented in 3 parts:

- Results for the births in 2021 and their trends since 2016
- Results for the 2-month follow-up of births in 2021
- Results for the establishments in 2021 and their trends since 2016.

I-4-1 Results for the births in maternity units

These results on births are divided into 3 sections:

- Trends in the characteristics of women, medical practices, and health between 2016 and 2021 in metropolitan France (Tables 3-47)
- The comparison of several indicators according to the type of pregnancy: singleton or twin (Tables 48-50)
- A presentation by major regions of the principal indicators, describing risk factors, medical management, and health (Tables 51-64).

To study recent trends in these indicators, we compared the data from the 2021 ENP to those of the ENP conducted in 2016 (Blondel et al., 2017). In this report, we also refer to the results of earlier surveys to situate these trends in a broader context. The 2016 sample included 13,133 women and 13,369 births in metropolitan France. The surveys followed the same protocol, except for the following points:

- Minimal data collection for the mothers younger than 18 years in 2016;
- Different formulations of some questions between the surveys, in particular to facilitate their understanding by the women and improve the precision of the information obtained;
- Different modes of collection for the questions concerning alcohol use, cannabis use, mental health, and violence: self-administered questionnaires in 2016 and questions asked directly of the women by the midwife-investigator during the interview in 2021.

Notes below the tables explain these differences. The 2021 questionnaire also raised new themes. Accordingly, for several tables, results are reported only for 2021.

All of the results for 2016 and 2021 are presented for the live births to women who agreed to be interviewed and/or to have their data collected from the medical file. For each item, we present the number, percentage, and CI in 2021, and the corresponding percentage in 2016. A test compared the distributions to explore the differences between the 2 surveys. Because of the sample size and the number of tests performed, differences were considered significant at a risk less than 1/1000 ($P < 0.001$), except for the regional

comparisons (Tables 51-64), which used a threshold of 1/100 ($P < 0.01$).

I-4-2 Results at 2 months

The results of this follow-up concern only the women who had an interview at the maternity ward and both agreed and responded to the follow-up at 2 months (n=7399). No comparisons are made since this follow-up took place for the first time in 2021. The indicators from this follow-up may be biased because of cohort attrition and the characteristics of the nonrespondents at 2 months (women who had refused at the maternity ward to participate in the follow-up as well as those who initially agreed to participate in the follow-up but then did not respond to it). A weighting to correct this bias was thus responding at 2 months. This weighting, performed by the DREES, was calculated by modeling with homogeneous response groups (Eltinge et al., 1997) the probabilities of response at each stage of the sample selection by the women responding at 2 months: nonresponse to the data collection at the maternity ward (except for the minimal data questionnaire), then nonresponse to the interview at the maternity ward, and finally nonresponse to follow-up at 2 months, knowing that the responses to the interview at the maternity ward are available. The technique we used to construct homogeneous response groups relies on Haziza and Beaumont's algorithm for constructing imputation cells (Haziza and Beaumont, 2007). Accordingly, the percentages presented are weighted and take into account the profile of all respondents at birth.

The characteristics of women and children 2 months after the child's birth are presented in Tables 65–84.

I-4-3 Results for the establishments

The results in metropolitan France in 2021 and their trends since 2016 are presented according to the hospital's level of neonatal care and maternity unit size. This size is calculated from the number of deliveries the year before the survey (2015, 2020), reported by the maternity unit supervisor who completed the establishment questionnaire.

The statistical tests compared the changes between the 2 years, that is, 2016 and 2021, with significant differences defined at a threshold of 1/100 ($P < 0.01$). Nonetheless, the variations are described according to the variables studied to be able to understand the changes for maternity units as a whole.
The organization of the birth centers is described specifically in Tables 101 and 102.

I-4-4 Results for the overseas districts and regions

The results for the facilities in the DROM and their participation rates are described in Table 103.
Tables 104–109 present several results for each DROM based on the national week and the weeks of extension, comparing them with those for metropolitan France. The differences were considered for a risk less than 1/1000 ($P < 0.001$).

PART II – RESULTS FOR BIRTHS

II-1 Description and trends since 2016 for births in metropolitan France

II-1-1 Women's social and demographic characteristics

Women's mean age at delivery rose between 2016 and 2021 (Table 3). The proportion of deliveries among women aged from 35 through 39 years rose from 17.2% to 19.1% and that of women aged 40 years and older from 3.9% to 5.4%. This trend is part of a long-term evolution: maternal age at delivery has been increasing continuously since the beginning of the 1980s in the registry office statistics; the INSEE data show that the mean age of mothers (of liveborn children) has climbed from 26.5 years in 1977 to 29.5 years in 2003, 29.9 years in 2010, 30.4 years in 2016, and 30.9 years in 2021 (INSEE, 2021). In 2021, the ENP included only 22 mothers younger than 18. In 2016, data for this age group came only from the minimal data questionnaire.

In 2021, 60.5% of women were either married or in a civil union (PACS) at the child's birth, versus 58.7% in 2016. The proportion of married women fell between 2016 and 2021, dropping from 40.6% to 38.2%. This decrease in the percentage of married pregnant women has been observed for more than 30 years; in 1980, 88.6% of women were married at their child's birth, according to vital registry data (INSEE, 2022). The proportion of women in civil unions rose from 18.1% in 2016 to 22.3% in 2021. A large majority of women reported living with and sharing a home with their partner (92.1%); 0.5% of women reported that their partner was a woman. The proportion of women not living with a partner has been stable since 2016, around 5%. The proportion of women living in a personal lodging (93.7%), that is, as an owner or leaseholder was also stable. On the other hand, the percentage reporting that they lived in a shelter or a hotel increased, nearly doubling from 0.8% in 2016 to 1.5% in 2021.

The proportion of women of foreign nationality giving birth in metropolitan France increased slightly between 2016 and 2021, rising from 14.1% to 15.8% (Table 4). The largest group of foreign women in 2021 came from North Africa (5.4%), as in 2016, and then from elsewhere in Africa and from Europe. Similarly, the proportion of women born outside France rose, from 18.6% in 2016 to 21.0% in 2021. Although North Africa remained the principal region of birth of women born outside France, we note a stronger increase among women born in other African countries (4.7% in 2016 versus 6.2% in 2021). Among the women born abroad, the proportion of those who arrived in France the year before they gave birth fell substantially between 2016 and 2021, dropping from 11.5% to 6.1%. This result must be interpreted in light of the COVID-19 (coronavirus disease, caused by the SARS-CoV-2 virus) pandemic, which limited migration flows in 2020 and 2021.

Women's education levels continued climbing: the proportion of women with at least one year of postsecondary studies rose from 42.8% in 2003 to 52.1% in 2010, 55.4% in 2016, and 59.4% in 2021 (Table 4). The increase was particularly strong among women with an education level exceeding 5 years of postsecondary schooling, which increased from 17.9% to 22.3% between 2016 and 2021. These findings

result from the prolongation of studies among youth, which had continued for several decades and is particularly noticeable among women (INSEE, 2020).

In 2021, 67.9% of women had a job at the end of their pregnancy; this is relatively stable compared with 2016 when 68.1% did (Table 5). It should be noted that in view of the pandemic situation, women working mandatory reduced hours (partial unemployment) were classified as working at the end of pregnancy. The percentage of women unemployed at the end of pregnancy (except those on reduced hours because of COVID-19) fell — from 16.8% in 2016 to 13.0% in 2021, which is close to the rate of 12.8% in 2010. We note a strong increase in the category *other situations* at the end of pregnancy (3.4% versus 0.9% in 2016), including among others maternity leave and unpaid leave. This increase probably indicates the heterogeneity of women's work status related to COVID-19, although we cannot offer a more specific hypothesis. It may also be explained by a different formulation of the questions between the 2 surveys. For example, maternity leave was classified in the "working" category in 2016 but as *another situation* in 2021.

The proportion of women who were worked during pregnancy, even for a short period, was stable: it was 70.8% in 2016 and 69.8% in 2021, but rose for full-time work, which climbed from 78.5% to 82.7%.

As in 2016, we used INSEE's *Sicore (Systéme informatisé de codage des réponses aux enquêtes*) software to automate the classification of current or previous occupations according to the French PCS nomenclature *(professions et catégories socioprofessionnelles)*. The occupations most frequently practiced by these women were those of manual, service, sales, or clerical workers (35.8%) and intermediate white-collar occupations (26.2%) (Table 5). More women giving birth in metropolitan France are now working in higher occupational categories, in particular, managers and professionals: 17.8% in 2021 versus 10.3% in 2016. The number of women reporting *no occupation* increased from 7.7% in 2016 to 10.3% in 2021.

We also observed that women stop working (without returning to work until after delivery) at an earlier gestational age than previously. While the percentage of woman stopping work after 32 weeks of gestation was stable at around 29%, stopping before 22 weeks was more frequent in 2021, when it was 30.3% compared with 24.8% in 2016. Analyses from the 2010 ENP showed that the women with the most unstable jobs and in occupations with the lowest qualifications were those who stopped working earliest (Vigoureux et al., 2016). The 2021 results must also be interpreted in light of the COVID-19 pandemic. Specific analyses will be conducted to improve our understanding of this process of stopping work early.

Women's resources are described at the household level, that is, taking into account the resources of all persons sharing the dwelling unit at the moment of the survey. These resources were ranked into mutually exclusive categories: 1) back-to-work assistance (ARE) (or unemployment allocations), 2) active solidarity income (RSA), 3) other assistance (allocations to adults with a disability, aid from families or associations, etc.), 4) income from work (salary, fees, low-income bonus, etc.), and 5) households with no resources. Family benefits for children or housing or a new child in the family were not counted in these other sources of

income. Overall, 16.4% of the households received ARE (versus 15.1% in 2016) (Table 6). In 2021, 6.9% of households received the RSA. Finally 72.6% of households had resources from work, for a slight increase since 2016 (71.8%). Nonetheless, the comparison with 2016 is difficult since the low-income bonus was included in the RSA category in 2016 but in the work-related category in 2021.

In terms of household income levels, the question raised in 2021 covered net income after withholding, which did not exist 2016. In 2021, the survey showed that the proportion of households with very low income (less than €1000 monthly) has fallen since 2016. On the other hand, based on a threshold of €1000 monthly, we observed a shift in the distribution toward higher incomes and especially a relatively strong increase in the proportion of households with an income from €3000 to €3999 per month (rising from 23.4% in 2016 to 27.1% in 2021) and very strong for the incomes of €4000 a month or more (from 18.1% to 24.6%). The trend was observed earlier, between 2010 and 2016. It thus continued, despite the new income withholding policy, which could have biased woman's responses downward. Despite this rise in income, the feeling of financial ease was fairly negative with 2.3% of women reporting they "cannot get by without going into debt," 7.3% that "it's difficult to get by," and 31.8% that they are "just about making it." Overall, 2.8% reported that they had had to choose against having medical or dental care, consultations, and examinations for financial reasons (Tables 6 and 7).

Women's health insurance coverage at the beginning of pregnancy remained relatively stable; the fraction of women without coverage at the beginning of pregnancy fell from 1.4% in 2016 to 1.0% in 2021. On the other hand, the proportion of women receiving the AME state medical aid (health insurance for undocumented individuals) rose from 1.1% to 1.7% (Table 6). Most women had complementary health insurance; only 7.1% of women reported they did not in 2021 versus 8.7% in 2016.
As in 2016, we calculated a deprivation index (Opatowski et al., 2016) that takes into account the following 4 criteria: not living with a partner, receiving RSA, receiving AME state medical aid, or having neither social insurance nor living in their personal dwelling (as owner or leaseholder). The proportion of disadvantaged (index =2) and very disadvantaged (index =3) women fell between 2016 and 2021, respectively from 7.2% to 3.9% and from 3.8% to 1.3% (Table 7).

II-1-2 Pregnancy in context

Although birth control pills remain the principal method of contraception used before pregnancy, their use continues to drop. In 2010, 73.8% of women had used oral contraception before pregnancy, 62.9% in 2016, and 52.6% in 2021 (Table 8). This decrease was compensated by the use of other methods — both hormonal and nonhormonal, in particular, the intrauterine device (IUD), the use of which increased from 9.5% in 2016 to 14.0% in 2021. Natural methods, such as withdrawal, also rose. Moreover, the proportion of women reporting that they had not been using contraception increased from 8.3% in 2016 to 11.8% in 2021.

Most women (70.9%) had stopped their contraception to have a child. This percentage fell between 2016 and 2021, perhaps because the potential answers to this question changed between these surveys. In 2021, 13.8% of the women reporting they had stopped their contraception said they did so because it did not suit them. This response was not available in 2016. We nonetheless note that the proportion of births due to pregnancies occurring while using contraception was stable (9.1%) (Table 8), although an increase had been observed between 2010 and 2016 (Bonnet et al., 2021).

For this pregnancy, 6.7% of the women had used fertility treatment, stable compared with 2016 (Table 8). The treatment most often used was in vitro fertilization (3.2% of births). As in 2016, the percentage of women using in vitro fertilization or artificial insemination was somewhat higher in our survey (4.7% of women) than in the statistics of the Biomedicine Agency, which estimated in 2019 that 3.6% of the children born in France had been conceived by medically assisted reproduction (ABM, 2020). The proportion of pregnancies obtained with oocyte donations was low, but nonetheless grew from 0.1% to 0.4% between 2016 and 2021. We note that we cannot estimate the proportion of in vitro fertilizations with donated oocytes performed abroad.

Only 37.9% of women had seen a professional because they were planning to conceive. This figure has increased slightly since 2016 (35.3%) (Table 8), although a preconceptional consultation has been advised since 2009 (HAS, 2009).

Most women reported that they were happy to discover their pregnancy: 71.4% compared with 72.5% in 2016 (Table 9). The percentage of women who would have preferred not to be pregnant was stable between 2016 (3.5%) and 2021 (4%).

Women's psychological state during pregnancy seems to have deteriorated; 8.9% felt "fairly bad" (versus 7.3% in 2016) and 3.4% "bad" (versus 2.8% in 2016) during this pregnancy (Table 9). In 2016, the questions about their experience of pregnancy were asked in a self-administered questionnaire, whereas in 2021 they were included in the maternity unit interview. In 2021, 25.6% of women reported that during their pregnancy, they had a "period of at least 2 consecutive weeks during which they felt sad, depressed, or hopeless" (versus 23.6% in 2016) and 19.1% an equally long "period... during which they had lost interest for most things, such as leisure, work, and activities that usually gave them pleasure" (versus 18.2% in 2016). These 2 items correspond to the principal symptoms of depressive disorders according to the Diagnostic and Statistical Manual of Mental Disorders (DSM5). The survey data do not allow us to define the portion of these symptoms related to the pandemic context. Nonetheless, numerous studies have shown its impact on depressive symptoms both in the general population and among pregnant women, which may well explain at least a part of the increase between 2016 and 2021 (Renaud-Charest et al., 2021).

The proportion of women reporting consulting a professional for psychological difficulties during pregnancy was low, given the situation described above, but it increased from 6.4% in 2016 to 8.9%; these women had most often consulted either a psychologist or a psychotherapist (Table 9).

The increase in maternal BMI observed since 2003 also continued. The proportion of women who were overweight and of those with obesity increased significantly between the 2 surveys, rising from 20.0% to 23.0% for overweight women (that is, with a BMI between 25 and 29.9) and from 11.8% to 14.4% for women with obesity (a BMI equal to or greater than 30 (Table 10). Weight gain during pregnancy was stable between the 2 surveys and averaged 12.5 kg.

A year before pregnancy, 27.1% of the women smoked (Table 11). Comparison with the 2016 data was not possible, in view of the different formulation of the questions between the 2 surveys (in 2016, women were asked if they had smoked "just before" their pregnancy; and 30% responded positively) (Demiguel et al., 2021).

Smoking during pregnancy has diminished: 12.2% of women reported smoking at least a cigarette a day during the third trimester of their pregnancy in 2021 versus 16.3% in 2016. The national plans against smoking (higher prices for tobacco, improved reimbursement for nicotine replacement therapy, enlargement of the range of professionals who can manage smoking cessation, actions taken in health facilities and no-smoking maternity units, etc.) and campaigns aimed specifically at pregnant women surely explain a portion of these results (Pasquereau et al., 2021). Moreover, our survey data show that health care professionals paid greater attention to smoking during pregnancy, since 91.9% of the pregnant women had been asked about their smoking (versus 79.8% in 2016) (Table 13).

In 2016, the questions about cannabis and alcohol consumption were asked with a self-administered questionnaire, unlike in 2021, when the interviewer asked them directly during the maternity ward interview. For this edition, 6.0% of women reported they had smoked cannabis a year before the pregnancy. Only 1.1% reported smoking cannabis during pregnancy, a notable reduction from 2016 when 2.1% did (Table 11). We cannot totally rule out the possibility of a bias from underreporting due to the data collection procedures, insofar as drug use during pregnancy is strongly advised against, and the survey took place in a medical setting. According to the French observatory of drugs and addictive trends, 7.1% of women aged 18 to 64 years reported using cannabis at least once in 2017 (OFDT, 2020).

Although the toxicity of alcohol consumption during pregnancy is well established, particularly for high doses (fetal alcohol syndrome, augmentation of stillbirth risks) (Saurel-Cubizolles et al., 2013), health care professionals seem to pay less attention to it than to smoking, as only 73.9% of women reported a health care professional asking them about their alcohol consumption during pregnancy (Table 13). This figure has nonetheless increased since 2016 (67.1%). Although more women received professional advice about drinking alcohol during pregnancy (Table 13), a fairly high proportion — 42.7% — reported that they had not received this counsel.

Around 3% reported having consumed alcohol at least once during pregnancy. The data on alcohol consumption in 2016 (Table 12) were collected by self-administered questionnaires and did not concern the

same reference period. Because of these differences in available answers for the question, no statistical tests were performed for it. Moreover, as also required in 2016, this figure must be considered cautiously because pregnant women often do not report their alcohol consumption exhaustively or may underestimate it to the midwife investigators (Lange et al., 2014; Gomez-Roig et al., 2018).

II-1-3 Prenatal care and prevention measures

Unlike 2016, the questions about the date they declared their pregnancy, the professional who reported it, and the number of prenatal consultations were not asked in 2021. These data are available in the national health data system (SNDS) and can be obtained and used when the 2021 ENP database is linked to the SNDS.

More than 90% of women felt well or very well supported by their family and friends during their pregnancy. The women who felt only a little or not at all supported accounted for respectively 6.7% and 1.7 of those questioned (Table 14).

Following the 2005-2007 perinatal plan, a portable pregnancy health notebook was developed; it included a substantial amount of information for women about their rights and the course of their pregnancy. Its distribution is the responsibility of the president of each district council, assigned to the PMI program, and is most often sent through the post office. The distribution of this notebook in 2021 was even less adequate than in 2016, with 56.2% reporting they had not received it in 2021, compared with 40.5% in 2016 (Table 14). Those who did receive it did so most often in the maternity ward during prenatal consultations.

During pregnancy, 18.5% of women had at least one home visit from a midwife, a figure stable compared with 2016. Moreover, 8.2% of the women reported having an interview with a social worker from the department of social services during pregnancy (versus 8.8% in 2016).

The early prenatal interview *(Entretien prénatal précoce)* (EPP) first became a part of prenatal care in France in 2007 to facilitate early identification of medico-psychosocial issues and to allow couples to express their expectations and their needs concerning pregnancy. Although this number of such appointments rose in 2021, they remained fairly rare: only 36.5% of the women reported having had one, compared with 28.5% in 2016 and 21.4% in 2010 (Table 15). This rate may nonetheless be underestimated if women cannot accurately distinguish EPP from prenatal consultations or from the start of childbirth preparation and parenthood classes. In 2021, it was essentially community or independent midwives who performed the EPP, in 57.5% of cases (versus 47.2% in 2016). As in 2016, the interview often took place at 4 months; half the interviews nonetheless happened later (47.8% in 2021 and 49.7% in 2016). According to 13.1% of the women, at the end of the interview, they were referred to a professional for various specific reasons (such as social difficulties, psychological problems, and smoking). The EPP became mandatory on July 1, 2022 (CSP, 2022), which should help improve its generalization; this can be assessed in the next ENP.

Antenatal classes are massively followed by nulliparas (80.3% of them) — and much less by women who already have children (35.3%). This participation was stable between 2016 and 2021 for both groups (Table 15). A very large proportion of CPP sessions take place in private practice. As in 2016, three quarters of the women attending CPP sessions had 4 to 8 of these.

As in 2016, the principal professional responsible for prenatal care during the first 6 months is an obstetrician-gynecologist, consulted mainly in private practice (Table 16). Nonetheless, the distribution of the type of professional mainly consulted has changed since 2016; in nearly 40% of cases in 2021, it was a midwife, either in private practice (22.9% in 2021 versus 8.5% in 2016) or at either a public hospital maternity unit or a local perinatal center (16.1% in 2021 versus 14.8% in 2016). This trend may be explained by the increase in the number of midwives practicing in the community and by the better visibility of their skills (Anguis et al., 2021).

Nearly 95% of women had had at least one consultation with the team at the maternity ward where they gave birth (Table 16). Half the women had consulted at least once on an emergency basis or without an appointment for a pregnancy-related reason, principally at the maternity ward or the hospital.

In France, in the absence of suspected or overt complications, 3 ultrasounds are routinely proposed. Nonetheless, the mean number of ultrasounds (whether or not they lead to a written report) is always much higher than the number recommended: 4.5 in 2003, 5.0 in 2010, 5.5 in 2016, and 6.3 in 2021. This increase involves particularly the women with 6 or more ultrasounds, a proportion that rose from 35.9% in 2016 to 49.0% in 2021 (Table 17). It is possible that some of these are not billed and are only performed during prenatal consultations to verify fetal vital status Comparison with national health insurance reimbursement data from the SNDS may shed light on this point. In 2021, 90.2% of respondents reported that they had had an ultrasound scan to measure their nuchal translucency (versus 87.0% in 2016). The proportion of women who did not know if this measurement had been made has continued to fall, dropping from 9.4% in 2010 to 6.9% in 2016, and then 5.7% in 2021 (Table 17).

The proportion of women screened for trisomy 21 increased from 86.5% in 2016 to 90.9% in 2021 (Table 17). The ENP data from 2010 and 2016 showed that this screening took place less often among women not born in France and was offered to them less often (Anselem et al., 2021). In 2021, the women not screened reported as their most frequent reason that they had refused the examination (65.6%); the consultation was too late for the screening was the second-ranked reason (14.9%). The proportion of women who had had amniocentesis fell to 2.0% in 2021 from 3.6% in 2016, while the proportion having a trophoblast biopsy was stable (0.5% in 2021 and 0.6% in 2016). This reduction in the number of amniocenteses is probably related to the noninvasive prenatal screening (NIPS) performed in 15.6% of women in 2021. Since 2019, this test has been reimbursed when the serum markers show a risk of trisomy 21 greater than 1/1000.

The percentage of women screened for gestational diabetes during pregnancy fell strongly between 2010 and 2016 (from 86.0% to 73.2%) following Clinical Practice Guidelines that recommended targeted screening

among women with risk factors for it: age exceeding 35 years, overweight, first-degree family history of diabetes, personal history of gestational diabetes or macrosomia (CNGOF, 2010). In 2021, the screening rate for gestational diabetes began to rise again from 73.2% in 2016 to 76.1% (Table 18). This increase may be related to the augmentation in maternal risk factors (age and obesity). Nonetheless these very high screening rates suggest that screening is still performed very frequently in women who do not correspond to the target population for these guidelines.

Despite the guidelines issued as part of the 2009 Cancer Plan and reiterated in 2014, and the guidelines issued by the HAS in 2020 (HAS 2010 and 2020), the proportion of women not having been screened for cervical cancer in the preceding 3 years rose to 35.8% in the 2021 survey from 19.7% in 2016 (Table 18). In the absence of a recent examination, pregnancy is an opportunity to perform this screening. Nonetheless, we cannot rule out the possibility that the question was not clear to women and was made more complex by the mention of self-sampling, added in 2021. This result may be illuminated by the SNDS data after linkage. Moreover, it is also possible that the pandemic did not favor access to screening in the months before their pregnancy.

Only one quarter of women are immunized against toxoplasmosis (Table 18). The rate of seroconversion for this disease during pregnancy was stable (0.2%).

Nearly 98% of women underwent syphilis screening during pregnancy.

The systematic preconceptional prescription of oral folic acid is recommended to prevent neural tube defects (HAS, 2009). This folic acid intake is the only measure that is effective in preventing these congenital anomalies and must begin as soon as the woman wants to become pregnant — at least 4 weeks before conception — and must continue through the 12th week of gestation. The proportion of women who took folic acid during pregnancy has certainly risen, from 55.7% in 2016 to 78.6% in 2021 (Table 19). Nonetheless less than a third started it before pregnancy, as recommended.

Despite the large number of women overweight or obese or with gestational diabetes, the proportion who had a consultation or attended an informational meeting about dietetics and nutrition was relatively low (14.8%) (Table 19).

Seroconversion for cytomegalovirus (CMV) during pregnancy is a cause of fetal growth restriction (FGR) and other fetal pathologies including neurodevelopmental and hearing disorders. Serological screening for CMV is not recommended either before or during pregnancy (HCSP, 2018) because no treatment has shown its prenatal efficacy against overt infection. On the other hand, prevention relies on hygiene measures that must be explained to all women who are or plan to become pregnant (HCSP, 2018; CNGOF 2019). This is a fundamental recommendation. In 2021, only 16.0% of women reported receiving advice to limit CMV transmission (Table 19).

In France, as in many countries, seasonal influenza vaccination is recommended for pregnant women regardless of the trimester of pregnancy; this has been the case since 2012 (HCSP, 2012). Covered by health insurance, this vaccination protects these women, who have a risk of hospitalization for influenza complications that is 2 to 8 times higher than among nonpregnant women of the same age. The vaccination also protects their newborns during the 6 months after their birth. In 2021, influenza vaccination was offered to 58.9% of women (Table 20). More than 30% of women were vaccinated in 2021, compared with only 7.4% in 2016. This number was low compared with the vaccination rate in other countries (Ding et al., 2017; Maertens et al., 2018). The explanation for the low rate observed in 2016 was the high rate of women refusing vaccination (Descamps et al., 2020).

These results should be looked at in light of the COVID-19 pandemic; vaccination against the coronavirus was not available in France for most women who gave birth in March 2021. It is probable that the incentive to be vaccinated against influenza was stronger at that time, both among pregnant women and in the general population. Trends in influenza vaccination outside of the COVID-19 pandemic context should be studied in the future to assess whether this favorable trend continues. Among the prescribers, we note a strong increase among midwives, who are also more frequently the principal health professional providing prenatal care during the first 6 months. In 2021, the principal reason given for nonvaccination by women who were not immunized was the absence of an offer for vaccination (41.4%), followed by the fear of harmful effects for the baby (23.9%) or distrust of vaccines (21.9%).

Health literacy is recognized as a key element in public health. By this term, we mean individuals' motivation and skills for acceding to, understanding, assessing, and using information to make decisions about their health. In 2021, questions assessing women's health literacy during pregnancy were asked for the first time as part of this survey. The ENP received authorization from the Swinburne University of Technology in Australia to use module 6 of its HLQ questionnaire (Health Literacy Questionnaire) (Capacity to engage with health care professionals) from the HLQ questionnaire, validated in French (Osborne et al., 2013; Debussche et al., 2018). Women were asked 5 questions. Each item was scored from 1 to 5. A global score below 3.5 expressed a low level of health literacy. Table 21 summarizes the results; the mean for the 5 items was 4.5 and only 5.6% of the surveyed women had a score less than 3.5. These results, which need to be examined in more depth, appear to show that globally women giving birth in metropolitan France reported having good discussions with their health care professionals during their pregnancy. These conversations enabled them to have responses to their questions and the information necessary for their pregnancy.

II-1-4 History, disease, and vascular complications of pregnancy

The proportion of women with genital mutilation was 0.9%. This information from the medical file was collected for the first time in the 2021 survey. It is thus possible that this rate is biased downward due to

underrecording by health care professionals, due to the difficult traceability of this history in medical files. Nonetheless, data in the general population about female genital mutilation are rare. The most recent estimates date from 2019 (Lesclingand et al., 2019) and show that approximately 0.5% of the French female population may be affected by genital mutilation — around 125,000 women. Accordingly, the data from the ENP are interesting and shed light on its prevalence in pregnant women.

Less than 1% of women had preexisting diabetes at pregnancy, whether insulin-dependent or not, and 2.6% had a history of gestational diabetes (versus 1.8% in 2016) (Table 22). Moreover, 23.2% of the women signaled a first-degree family history of diabetes (insulin-dependent, non-insulin-dependent, or gestational), figures stable compared with 2016 (23.7%). Less than 1% of women had chronic hypertension before this pregnancy and 1.2% a history of gestational hypertension in a previous pregnancy.

The proportion of women who had at least one elective abortion remained stable between 2016 and 2021: 16.4% and 15.2% respectively (Table 22).

The number of previous deliveries (parity) also remained stable, despite the women's higher age at childbirth. In 2021, 41.3% of women were giving birth for the first time and 35.1% for the second (Table 23).

The proportion of women with a serious obstetric history, such as a fetal death in utero, a neonatal death, a preterm delivery, or a newborn with growth restriction was 13.1% (Table 23). The proportion of parous women (with at least one previous birth after 22 weeks' gestation) with at least one previous cesarean was 20.7% (versus 19.8% in 2016).

The global rate of prenatal hospitalization and its duration were not collected in 2021, because this information is available in the SNDS and can be used secondarily. The frequency of in utero transfers (i.e., transfer before birth) was stable, at 1.9% in 2021 (Table 23). This represents only some of the movement between maternity units; specifically, it does not include women referred to another maternity ward for a consultation or medical advice. Moreover, women transferred and then returned to the initial maternity ward after stabilization of the disease or reduction of the risk (after a very early threatened preterm delivery, for example) may not have been recorded.

Antenatal corticosteroid therapy for fetal lung maturation is declining; it was administered to 4.8% of women in 2021 (versus 5.9% in 2016) (Table 24). This treatment is recommended only before 34 weeks (CNGOF, 2016). Gestational age at the moment of the first treatment corresponded better to these guidelines in 2021, with fewer women treated after 34 weeks (5.6% versus 12.1% in 2016). Hospitalizations for threatened preterm delivery were stable (4.8% versus 5.4% in 2016), as were their durations.

Hypertension was diagnosed during pregnancy in 4.3% of women, and hypertension with proteinuria in 2.3%. This rate has been stable since 2016 (Table 24). Hypertension was principally diagnosed during the third

trimester: 38.1% were diagnosed between 32 and 36 weeks and 41.8% at 37 weeks or later. In all, 65% were hospitalized.

The frequency of gestational diabetes continued to climb: 16.4% of women were diagnosed in 2021 versus 10.8% in 2016 (Table 25). The increase affected both gestational diabetes treated by diet and that requiring insulin. As in 2016, it is probable that this augmentation is at least in part explained by the continually rising maternal age and BMI, but also perhaps by the 2010 guidelines about screening for gestational diabetes (CNGOF, 2010). The latter recommended targeted screening at 2 time points for women with maternal risk factors: fasting blood glucose in the first trimester and orally induced hyperglycemia (oral glucose tolerance test) at 75 g between 24 and 28 weeks. This strategy, while adopted in other countries, is criticized because of data suggesting that it may increase the number of false positives that will no longer be caught because a verification oral glucose tolerance test at 100 g is no longer offered (HAPO Study Cooperative Research Group et al., 2008; Cundy et al., 2014; McIntyre et al., 2014).

The proportion of women with placenta previa (associated or not with vaginal bleeding) was stable (1.5% in 2021 versus 1.1% in 2016). Among the women with placenta previa, 26.1% were hospitalized for vaginal bleeding after 22 weeks in 2021.

Anemia, defined by a hemoglobin level less than 11 g/dL, was diagnosed in 25.2% of the women (Table 25). This was the first French estimate in the general population. This disease can promote some obstetric complications, in particular, the onset of postpartum depression (Guignard et al., 2021); 2.8% of women received an intravenous iron injection during pregnancy.

Among the women included in the 2021 survey, 678 (5.7%) were infected by coronavirus during pregnancy, including 40.9% during the second trimester and 49.3% during the third.
Fetal weight abnormalities were suspected during pregnancy: 5.2% of the newborns had FGR or were small-for-gestational-age, figures stable versus 2016 (5.3%); 8.7% had macrosomia, a net increase compared with 2016 (5.0%).

II-1-5 Labor and delivery

The characteristics of the place of delivery changed less between 2016 and 2021 than between previous ENP surveys, when the concentration of births in specialized Type II and III maternity units, public and very large, was first observed (Blondel et al., 2005; Blondel et al., 2012). Between 2016 and 2021, the proportion of deliveries in private maternity units fell slightly, from 23.5% to 21.5% (Table 26). Deliveries in level I maternity units also decreased, from 22.6% to 20.1%. The proportion of births in maternity units with more than 3500 deliveries per year was stable, as was the number of these establishments (see results for the establishment component). This corresponds to the changes in the structure of these facilities described in part IV of this report.

The time it took women to travel to their maternity unit changed only a little from 2016. In 2021, 7.8% of women reported it took 45 minutes or more to reach the maternity unit (versus 7.2% in 2016) (Table 26). Between 1998 and 2003, analyses of the data from earlier surveys showed that the diminution in the number of maternity units had not substantially affected the distance traveled, but had limited their possibilities for a choice of a maternity unit near their place of residence (Combier et al., 2004, 2004; Pilkington et al., 2008; Pilkington et al., 2012).

Although the proportion of women with a written birth plan tripled between 2016 and 2021, there were still very few: 10.2% in 2021 versus 3.7% in 2016 (Table 27). Among the women with written or oral requests, 92.5% were able to tell them to the delivery team. Most frequently these involved being able to do skin-to-skin with their baby (67.3% of the women expressing requests), to be able to walk or change position (60.1%) or limit medical procedures (52.2%). The proportion of women reporting that they "had no particular requests" for the delivery was elevated (70.1%). We cannot know if this result is an expression of confidence in the health care team or on the contrary because they did not dare express their wishes, or even that they did not know this was possible (Table 27).

Between 2010 and 2016, the proportion of women whose labor was induced was stable at 22.0%. On the other hand, between 2016 and 2021, this practice increased anew, rising to 25.8% (Table 28). Induction of labor thus currently concerns one in 4 women. In recent years, several trials have assessed induction of labor in different contexts (nulliparas at low risk, chronic hypertension, FGR, and suspected macrosomia) and did not find increased cesarean rates in the groups of women with inductions (Grobman et al., 2018; Boulvain et al., 2015; Boers et al., 2010; Koopmans et al., 2009). Although the results of these trials, performed with obstetric practices sometimes different from French practices, must be interpreted with prudence in the French context, they have certainly encouraged obstetricians to use induction more often. Cervical ripening was used in 69.2% of inductions (versus 61.9% in 2016). Since the MEDIP (METHODS of Induction of labor and Perinatal outcome) study was conducted in 2015, ripening methods have changed markedly (Blanc-Petitjean et al., 2018). Among the reasons is that oral misoprostol was authorized in France for cervical ripening in 2018. In 2021, the methods of ripening used in first line were, in descending order of frequency, a slow-release vaginal pessary with prostaglandins (48.7%), balloon catheter (23.9%), misoprostol (17.2%), and prostaglandin gels (9.7%). The principal reasons for induction were that the fetus was post-term or to prevent post-term birth (23.5%), prelabor premature rupture of membranes (20.4%), other abnormalities in fetal heart rate or movement (fetal vitality) (10.5%), gestational or preexisting diabetes (9.5%), suspected macrosomia (8.5%), or maternal hypertensive disorders (8.0%) (Table 29).

The frequency of cesareans before labor (planned or not) rose from 9.3% in 2016 to 10.4% in 2021 (Table 28). The principal reasons for cesareans before labor were previous cesarean delivery (39.8%), abnormal fetal presentation (17.4%), including breech presentation, other abnormalities in fetal vitality (8.1%), and other maternal disorders (8.1%) (Table 29).

The rates of medical interventions to shorten the duration of labor, such as amniotomy and oxytocin administration, had already decreased notably between 2010 and 2016, without any simultaneous increase in the cesarean rate (Girault et al., 2020). These decreases have continued. Among women in labor, whether spontaneous or induced, oxytocin use dropped from 52.5% in 2016 to 41.3% in 2021; among women in spontaneous labor, it fell from 44.4% to 30.0% (Table 28). Similarly, amniotomy among women in spontaneous labor fell from 41.4% in 2016 to 33.2% in 2021. These trends in reduced medical intervention during labor are consistent with current guidelines (Dupont et al., 2017; HAS, 2018).

The global cesarean rate in 2021 was 21.4%, versus 20.3% in 2016, relatively stable since 2003 (Blondel et al., 2017) (Table 30). The World Health Organization (WHO, 2014) recommends applying Robson's classification (Robson et al., 2015), which has been used in numerous countries (Zeitlin et al., 2021), to analyze trends in cesarean rates. This classification, proposed by Robson in 2001, makes it possible to group women in 10 categories according to their characteristics and those of their pregnancy. It has several advantages: the data required are relatively simple and collected routinely in many countries and maternity units; the data are objective and not subject to potential interpretation bias; and the categories are mutually exclusive. This classification has already been used to analyze cesarean rates in France in earlier surveys and for comparisons with other European countries (Le Ray et al., 2020; Le Ray et al., 2015; Le Ray et al., 2015). For the moment, the ENP is the only source allowing the analysis of cesarean rates according to all of the Robson categories at the national level. As in 2016, we observed in 2021 that the strongest contribution to the cesarean rate was group 5, that is, the women with a history of one or more cesareans and a singleton fetus in cephalic presentation at term. Its contribution to the global cesarean rate rose from 5.4% to 6.0% from 2016 to 2021 (Table 33). The second contributor was group 2, that is, the nulliparas, with a singleton fetus at term in cephalic presentation, with induction of labor or a cesarean before labor. This rate has been stable since 2016.

The proportion of births by operative (instrumental) vaginal delivery (OVD) in 2021 (12.4% of births) was similar to that reported in 2016 (Table 30). In 2021, as since 2010, the principal instrument used by obstetricians for these deliveries was the vacuum extractor. Its use increased substantially, accounting for 49.8% of vacuum deliveries in 2016 and 60.2% in 2021.

In 2021, as in 2016, midwives managed more than half the births in maternity wards (Table 30) and supervised 88.6% of spontaneous vaginal deliveries, a rate stable compared with 2016 (87.5%) (Table 32).

Our first estimate of the proportion of women receiving antibiotic therapy during labor was 28.9% (Table 31). Nonetheless, the survey data do not allow us to identify the indication for this treatment, preventive or curative, and the women's Streptococci B carriage status is not known.

Preventive oxytocin administration at delivery has demonstrated its efficacy for diminishing the risk of postpartum hemorrhage and is recommended for all births, including physiological (HAS, 2018). On the other

hand, maintenance oxytocin administration in the hours after delivery is not routinely recommended except in cases with risk factors for PPH or for curative purposes. In 2021, globally, more than 90% of women received oxytocin after delivery. This preventive oxytocin administration administered in bolus or slow IV increased from 2016 through 2021 from 41.9% to 60.5% (Table 31). These results show globally good dissemination of the clinical practice guidelines (CNGOF, 2014). The rate of PPH, defined by blood loss exceeding 500 mL in the 24 hours after delivery, was 11.6% (note: this indicator was not collected in 2016). Severe PPH occurred in 3.0% of the 2021 deliveries, up from 2016 (1.8%). More specific analyses must be performed to better understand the situations leading to this increase in severe PPH.

Although the guidelines recommend leaving women the choice of birthing position (HAS, 2018), this choice has changed very little since 2016 and remains mainly the supine position (on her back), at both the beginning of pushing (87.2%) and the moment of expulsion (93.9%) (Table 32).

The episiotomy rate, which has been decreasing for several decades, fell still more sharply, dropping from 20.1% in 2016 to 8.3% in 2021. This reduction concerns the nulliparas (34.9% in 2016 versus 16.5% in 2021) as well as paras/multiparas (9.8% in 2016 versus 2.9% in 2021), and also both the spontaneous vaginal deliveries (13.6% in 2016 versus 4.6% in 2021) and the OVDs (55.6% in 2016 versus 28.2% in 2021). This trend follows an international consensus on the lack of benefit of routine episiotomy in preventing perineum-sphincter disorders and professionals' volition to respond to their patients' requests (HAS 2018; CNGOF 2018). Nonetheless, at the same time, we observed an increase in perineal tears, in particular first- and second-degree tears (58.8% in 2021 versus 51.3% in 2016). The relation between an episiotomy and prevention of severe perineal lesions (third and fourth degree) is still debated, especially in OVDs (Blondel et al., 2016). Analyses using the 2010 ENP data and comparing episiotomy rates and severe perineal lesions in different European countries showed a negative correlation between episiotomy and severe perineal lesions (Blondel et al., 2016).

The rate of epidural analgesia among women attempting vaginal delivery is always very high in France (Euro-Peristat, 2016). It increased again slightly in 2021, when 82.7% of women had epidural analgesia (versus 81.4% in 2016). The rates of spinal analgesia and of combined spinal and epidural anesthesia remained low, with nonetheless an increase in spinal anesthesia (1.2% in 2021 versus 0.4% in 2016) (Table 34). This high rate of neuraxial analgesia during labor is consistent with the wishes of women giving birth in France. Specifically, when asked about their desire for access to an epidural during labor before delivery, 65.6% "absolutely" wanted it, and 17.9% "perhaps" wanted it. We note nonetheless a slight increase between 2016 and 2021 in the percentage of women who a priori did not want epidural analgesia (14.6% and 16.5% respectively) (Table 35).

The rate of self-administered pump analgesia (PCEA: patient controlled epidural analgesia) also climbed (74.2% in 2021 versus 53.8% in 2016) (Table 34). The increased use of PCEA for epidural analgesia (including

combined with spinal) has many advantages: it reduces the consumption of local anesthetics and therefore the onset of motor block and lowers the number of complementary boluses administered due to insufficient analgesia, thus reducing the number of human interventions (Van der Vyver et al., 2002). Moreover, the 2016 survey data allowed us to show that PCEA improved women's satisfaction with the analgesia they received during both labor and delivery (Merrer et al., 2021).

Nonetheless, we observe that the effectiveness of this epidural analgesia in relieving this pain is imperfect; 19.6% of women considered that the epidural was "a little or partially effective" and 3.6% "totally ineffective).

The proportion of women who used a medical method (infusion, injection, tablets, or gas) for pain management was 28.9% in 2021, stable compared with 2016 (28.5%). On the other hand, the use of nonmedication methods, alone or combined with analgesia (medication, epidural, spinal anesthesia, combined spinal and epidural anesthesia) continued to increase, from 14.3% in 2010 to 35.5% in 2016 and 49.2% in 2021 (Table 35). The principal methods used are motion (walking), then a bath or shower, and massages. Other methods (e.g., hypnosis, sophrology, and acupuncture) are used less often. These trends probably reflect changes simultaneously in practices of maternity units (which may be offering women methods alternative or complementary to the epidural), and stronger demand by women to be able to use non-drug methods. For the women who want it, the combination of an epidural associated with complementary non-drug methods satisfies women best and should be the reference standard (Merrer et al., 2020). As a whole, women found these methods satisfactory, with more than 90% "satisfied" or even "very satisfied" with the methods used for pain relief).

The 2021 ENP also paid particular attention to women's perceived pain at delivery. During the interview, the women were asked to rate their pain on a numeric scale, from no pain at 0 to maximum pain at 10. Generally, pain rated between 4 and 6 is considered strong pain while that rated from 7 to 10 is considered unbearable. Despite the high rate of neuraxial analgesia in 2021, the percentage of women reporting unbearable pain at their child's birth, by either spontaneous or instrumental vaginal delivery, was quite high: 29.7% for spontaneous and 37.8% for OVDs (Table 36). At the moment an episiotomy or laceration was sutured, 13.9% of women reported strong pain and 8.9% unbearable pain. Women with cesareans reported high pain levels, with 8.6% rating the pain at the beginning of the cesarean as strong and 10.4% unbearable. These rates were 8.6% and 7.7% just after the extraction of the baby. Of the women with pain during the cesarean, 9.7% did not think that the team in the operating room took it adequately into account (Table 37). Professional societies, working with user groups, recently issued clinical practice guidelines that must be disseminated more widely (CARO, 2021).

The updated French and European guidelines now allow women to drink liquids during labor, but not to eat solid food (HAS, 2018; Singata et al., 2013). In 2021, 53.7% of women drank in the delivery room, 6.7% ate solid food, and 39.6% neither drank nor ate (Table 34).

The modes of labor onset and of delivery varied strongly by gestational age and birth weight (Table 38). As in 2016, the proportion of cesareans before labor fell as both gestational age and birth weight rose, up to 40 weeks and 3500 to 3999 g. Induction of labor was very rare before 35 weeks and 1500 g. The mode of labor onset as a function of gestational age changed between the 2 surveys. The induction rate rose between 2016 and 2021 at every week of gestational age from 37 weeks. Similarly, the rates of cesareans before labor were higher in 2021 than in 2016 at every week of gestational age up to 39 weeks.

In both 2016 and 2021, the global cesarean rate fell with gestational age and with birth weight up to 40 weeks and 3000--3499 g, before starting to rise again (Table 38). The frequency of OVDs increased continuously with gestational age. In 2021; the OVD rates from 2500 g upward exceeded 10%, as in 2016.

II-1-6 Newborns' health status

The detailed distribution of gestational age and of birth weight among all live births did not change between 2016 and 2021 (Table 39). The mean birth weight in 2021 was 3264 g, globally stable relative to 2016 (3251 g). Gestational age at birth did not differ from 2016 to 2021. The rate of preterm birth (gestational age at birth less than 37 weeks) was stable at 7.0% as was the proportion of infants weighing less than 2500 grams (7.1%). These proportions varied strongly according to the population on which they were calculated (singleton or twin pregnancies) (Table 40). Among the live births, the preterm birth rate fell from 5.8% in 2016 to 5.5% in 2021 for singleton births and rose from 46.4% to 52.6% for twins. These data from the ENP correlate with those from the PMSI for 2021, the annual baseline for this type of event (DREES, 2022).

The frequency of small-for-gestational-age (SGA) children (<10^{th} percentile) was also stable, with slight changes from 11.6% in 2016 to 11.0% in 2021 for the overall population, from 10.8% to 10.1% for the singleton births, and from 34.6% to 35.5% for the twins (Ego et al., 2016) (Table 40). Similarly, the morphologic characteristics of newborns did not change between the 2 surveys (Table 41).

The 5-minute Apgar score was stable between 2016 and 2021 (Table 41). Fetal acidosis, defined by an umbilical cord blood pH less than 7.15 at delivery, affected 9.9% of newborns, and severe acidosis (pH < 7.00), 0.7% (Table 42). The frequency of severe acidosis is similar to the data in the literature (Berglund et al., 2010; Maisonneuve et al., 2011, Garabedian et al., 2019, Azik et al., 2020). Among the resuscitation procedures at birth, professionals most often used a Neopuff (and less often a balloon), thus demonstrating good adherence to guidelines (Tables 42 and 44). Nonetheless, the increase in resuscitation procedures (Neopuff and continuous positive airway pressure (CPAP)), especially in neonates at term, requires supplemental analyses. The wide availability of Neopuff in delivery rooms may partially explain the broader use of this treatment. Nonetheless, beyond these more frequent resuscitation maneuvers at birth, the stability in the frequency of hospitalization (including for children at term) regardless of the department concerned, must be noted.

Suspected early neonatal bacterial infection is frequent, but overt infections are rare, from 0.8 to 1 per 1000 live births — and engender unnecessary complementary examinations as well as excessive antibiotic prescriptions (Sikias et al., 2015). In accordance with the 2017 guidelines (SFN and SFP, 2017), the number of bacteriological samples taken at birth has diminished significantly, divided by 4 since 2016 (10.3% versus 42.8%) (Table 42). In principle, this reduction is not attributable to a difference in the formulation of questions between the 2 surveys. Nonetheless, in 2016, the bacteriological examination included gastric fluid and peripheral samples (ear and anus), while in 2021 it comprised only gastric fluid). The peripheral (anus/ear) samples are generally nonetheless taken at the same time as the gastric fluid (Madar et al., 2021).

Most women (88.7%) were accompanied at the time of birth by a family member or friend, generally their partner (84.9%). Nearly 7% were alone for a vaginal delivery, 20.0% for a planned cesarean delivery, and 34.6% for an emergency cesarean (Table 45).

Nearly 88.9% of mothers whose child was not transferred had skin-to-skin contact with the child after the birth, in the delivery, operating, or recovery room; this contact involved 96.5% of women with vaginal deliveries and 56.6% of those with cesareans (Table 45). The duration of skin-to-skin was not defined in the survey.

II-1-7 Postpartum hospitalization of mother and child in the maternity department

Two thirds of the women reported having chosen how they would feed their child before the pregnancy and one third during pregnancy. The mode of feeding was preferentially breastfeeding (64.8%), then commercial formula (26.7%), and finally mixed breastfeeding (8.5%). The women who had planned to breastfeed had most often envisioned doing it as long as possible or between 1 and 6 months (Table 46).

The proportion of women who attempted breastfeeding in the first 2 hours of life increased slightly from 65.7% in 2016 to 69.4% in 2021 (Table 46).

The maternal breastfeeding rate at the moment of the interview barely increased compared with the preceding survey; 56.3% of women exclusively breastfed their child at the maternity ward in 2021 compared with 54.6% in 2016, and 13.4% did mixed breastfeeding versus 12.5% in 2016 (Table 46). The rate of exclusive breastfeeding remains low in comparison with other European countries (Euro-Peristat, 2016). This should nonetheless be looked at in relation to the percentage of women who had expressed a choice before the birth for breastfeeding, either exclusive or mixed.

In 2021, at the time of the interview, nearly 44% of women had not received advice about how the newborn should be placed for sleeping; 16.4% had received this information during pregnancy, 18.2% after delivery, and 18.0% during both periods (Table 46). The different formulation of the question between the 2 surveys makes a comparison of these results difficult (in 2016, women were asked if they had received this advice

"since delivery"). In practice, advice about the infants' sleeping position and bedding may also be given at the maternity ward at the woman's discharge, so that the information she really received could have been underestimated.

The duration of hospitalization in the maternity ward after delivery has continued to fall, both among women with vaginal deliveries and those with cesareans. The mean length of stay was 3.7 days in 2021 (versus 4.0 days in 2016) (Table 47). Most frequently, when children are not transferred, women are hospitalized for 3 days after vaginal delivery (53.5% in 2021) and 4 days after a cesarean (50.6%). More very short stays (2 days or less) were observed for women with spontaneous vaginal deliveries; these rose from 5.0% of stays in 2016 to 15.2% in 2021. Early discharges also increased among women with cesarean deliveries, climbing from 5.8% in 2016 to 17.7% in 2021. On the other hand, long stays (6 days or more) occurred less often, accounting for 16.8% of stays in 2016 and only 7.7% in 2021. The survey took place in March 2021, that is, during the third wave of COVID-19 in France. This health context probably led to more early discharges.

II-2 Particular populations

II-2-1 Twin births

Twin births are a group at high risk that should be studied, especially because of their high rates of preterm birth and low birth weight. Mothers of twins also present higher risks of complications during pregnancy and delivery (Prunet et al., 2015).

Tables 48–50 present the characteristics of the mothers of twins and their prenatal care and of the children's birth and health status at that moment. These characteristics are compared to those observed in singleton pregnancies.

The mothers of twins were older: 34.7% of them were 35 years or older at the twins' birth compared with 24.4% of the mothers of singletons (Table 48). Their parity and psychological status during pregnancy, on the other hand, did not differ from those of the mothers of singletons. Nearly 10% of the twins' mothers had not had a consultation with the maternity ward before giving birth there, probably because they had preterm deliveries more often, which could have led to more frequent transfers to another hospital with a higher level of neonatal care (Table 48). In all, 33.8% were hospitalized for threatened preterm delivery, and 40.3% received corticosteroids for fetal lung maturation before birth (Table 48).

Mothers of twins gave birth more often than mothers of singletons in university hospital centers or regional hospital centers (41.1% versus 20.3%) and/or in level III maternity wards (48.8% versus 26.4%) (Table 49). The proportion of twin deliveries in level I maternity units was low (8.1%).

Mode of labor onset was also different between twin and singleton pregnancies; labor was induced for 34.4% of twin mothers (versus 25.7% for the singleton pregnancies) and 36.9% had a cesarean before labor (versus 9.9%) (Table 49). Twins were born by cesarean delivery more often (58.2% versus 20.1% for singletons).

They had a very high risk of preterm birth and low birth weight: 52.6% instead of 5.4% for singletons — almost 10 times higher (Table 50). This excess risk was observed for moderately preterm as well as very preterm births: 8.0% of (liveborn) twins were delivered before 32 weeks compared with 0.9% of singletons. The percentages of birth weights less than 2500 g were 58.6% for twins compared with 5.3% for singletons — another rate about 10 times higher.

These differences led to a higher rate of neonatal transfer among twins. Overall, 60.8% were transferred to another department or had a particular form of hospitalization within the maternity ward, compared with 9.2% of singletons (Table 50).

II-2-2 Regional comparisons

Key indicators describing women's characteristics, medical practices, and pregnancy outcomes are presented by region in Tables 51—64. Santé publique France and the local ARS conducted extensions of the 2021 ENP in the DROM, except in French Guyana. The results of these extensions are presented in reports specific for each DROM and analyzed separately.

For the DROM, the tables presented in this section include only the women from the 2021 ENP national week (March 15–21, 2021). Because of the small number of individuals, all of the DROM are pooled in these tables, which are not commented on below.

The frequencies are presented with their 95% CIs. Because the number of deliveries in Corsica was very low (n=48), the CIs are very wide, which limits the interpretation of the data for this region. The data with a number of individuals <10 are not presented.

These tables show great heterogeneity in the mothers' characteristics and the perinatal health status between the regions of metropolitan France for the indicators selected.

The percentage of women aged 35 years and older was higher in the Île-de-France (30.0%) (Table 51). On the other hand, women aged 35 years and older were least numerous in Normandie (16.3%) and in the Grand Est and Hauts-de-France regions (20.6% for each), compared with metropolitan France as a whole. The proportion of women with an education level of at least one year of postsecondary studies was highest in Île-de-France (67.3%), and lowest in Normandie (48.1%), Hauts-de-France (52.6%), Bourgogne-Franche-Comté (53.0%), Occitanie (53.2%), and Grand Est (53.7%) (Table 52). This heterogeneity was previously observed in 2016.

Unemployment allocations and/or RSA were received more often by households in Occitanie (30.2%), Hauts-de-France (29.6%), and least often by households living in Île-de-France (17.5%) and in Auvergne-Rhône-Alpes (20.3%) (Table 53).

The proportion of women with obesity (BMI ≥ 30) was highest in Hauts-de-France (17.2%) (Table 54).

Smoking during the third trimester of pregnancy was most frequent in Hauts-de-France (17.2%) and in Occitanie (15.9%) (Table 55). Ile-de-France (5.9%) had the lowest smoking rate.

Preconceptional use of folic acid to prevent neural tube defects remained relatively low in France (28.3% of women in metropolitan France). Prevention measures appear to be followed better in some regions; Pays de la Loire (35.3%) and Bretagne (33.9%). The lowest rate was found in Hauts-de-France where only 22.6% of women had taken folic acid before their pregnancy (Table 56).

Regional variations have also been observed for adherence to another prevention measure: vaccination against seasonal influenza (30.4% of women in metropolitan France) (Table 57). The highest shares of vaccinated women were found in Bretagne (40.6%), Pays de la Loire (39.7%), and Hauts-de France (35.1%). Women in the regions of Provence-Alpes-Côte d'Azur (20.2%) and Occitanie (21.2%) were vaccinated less often than anywhere else in metropolitan France.

Performance of the early prenatal interview (EPP) was heterogeneous between regions. Overall, 36.5% of the women in metropolitan France had had this interview, with the highest proportions in Nouvelle Aquitaine (50.6%), Normandie (48.1%), Bretagne (44.8%), and Bourgogne-Franche-Comté (42.8%) (Table 58). Women giving birth in Île-de-France had an EPP less often than women elsewhere in metropolitan France (28.7%). It is difficult to know what influence the COVID-19 pandemic had on the EPP rate. Nonetheless, we note that the 2 regions (Ile de France and Grand Est) with the lowest EPP rate were among those most strongly affected by the pandemic.

Medical practices such as induction of labor and cesarean delivery varied little between the regions. The highest induction rate was observed in Île-de-France (29.1%) and the lowest in Auvergne-Rhône-Alpes (20.7%) (Table 59). Ile de France was also notable for its high rate of cesarean deliveries (23.5%). Nonetheless the region where women most often had cesarean births was Provence-Alpes-Côte d'Azur (27.9%) (Table 60).

Although globally the episiotomy rate fell very strongly in all regions with a rate for metropolitan France of 8.3% in 2021, regional variations persisted. The regions with the lowest episiotomy rates were Bourgogne-Franche-Comté (4.0%), Bretagne (4.3%), and Grand Est (5.7%) (Table 61). Ile-de-France is again notable for the highest episiotomy rate (11.3%).

The regional variations in preterm birth rates essentially overlapped those in low-birthweight liveborn children. Globally the preterm birth rates were similar in the various regions of metropolitan France (Table 62). Similarly, the proportion of low-birthweight infants, defined by a birth weight less than 2500 g, varied little between these regions (Table 63).

Inversely, the proportion of newborns breastfed at the maternity ward (exclusive or mixed breastfeeding) varied quite substantially between regions. The proportion of breastfed newborns was significantly lower than the national rate in Hauts-de-France (57.8%), Normandie (58.4%), Pays de la Loire (61.2%), and Bretagne (62.7%) (Table 64). The highest breastfeeding rate was observed in Ile-de-France (81.2%).

PART III – RESULTS OF THE 2-MONTH FOLLOW-UP

III-1 Description of the results of the 2-month follow-up

III-1-1 Participation in the 2-month follow-up

To pinpoint better the characteristics of the respondents to this 2-month follow-up questionnaire (Table 65), women eligible for it were categorized into 4 groups:

- responded completely to the postpartum maternity ward questionnaire (61.3%),
- partially completed the questionnaire (6.2%),
- agreed to follow-up but did not participate (22.9%)
- refused to participate at the time of the interview (9.6%).

Most women responded by internet. The questionnaires were nonetheless most often completed by telephone. Nearly half the questionnaires were completed before the child's 60th day of life. Finally, 7394 women responded to this questionnaire among the 9907 who had agreed to, that is, nearly three quarters. The nonrespondents were more often young (≤ 24 years), of foreign nationality, with an education level of at least one year of postsecondary studies, and parous; they lived with a partner less often.

The results of this follow-up present the total numbers for each item, that is, the real number of respondents to each item of the follow-up. The percentages presented, however, are weighted to take into account the population of nonrespondents. Accordingly the actual numbers cannot be back-calculated by category.

III-1-2 The partner

For this edition of the ENP, the questions concerning the partner's characteristics were asked at 2 months and therefore cannot be compared with the results of the preceding survey.

In 2021, 94.1% of women had a partner, whose mean age was almost 34 years (Table 66), and 85.3% of whom had French nationality. At 2 months, 89.0% of the women reported that their partner had a job at the time they completed the questionnaire. The partner's occupation, in descending order, was most often worker (32.6%), then manager or higher intellectual professional (21.7%), or intermediate professional (19.8%). More than 60% of partners had taken a leave (paternity, annual, or parental) after the birth and more than 12% planned to. It should be noted that the 2021 ENP took place in March, thus before the promulgation of the law prolonging paternal leave (Journal Officiel de la République Française, 2021).

III-1-3 Experience of pregnancy and delivery

Most women considered pregnancy to have been a pleasant (32.9%) or fairly pleasant period (51.6%) to live through. Nonetheless 11.6% had experienced this period as difficult, and 3.9% as very difficult

(Table 67). The women were mostly very satisfied (61.8%) or fairly satisfied (34.6%) by their medical management and prenatal care. Only 2.9% of women reported they were fairly unsatisfied and 0.7% very unsatisfied.

Overall, women considered that the professionals were very present (68.0%), fairly present (26.8%), not very present (4.5%), and unavailable (0.7%) (Table 67). Again, they were, globally, very satisfied (76.1%) or fairly satisfied (20.1%) by their professionals' management in the delivery room. Only 2.5% of women reported being fairly dissatisfied and 1.3% very dissatisfied by their care by professionals as they gave birth. This very high degree of satisfaction was also observed in a survey by DREES in 2006 among maternity unit users (Collet, 2008). Nearly 90%, moreover, reported that they would recommend the same maternity unit to a friend or family member. On the other hand, more than one woman in 10 had "fairly bad" or "very bad" memories of her delivery.

During their hospitalization at the maternity ward, one third of the women had entrusted their newborn to the nursery at least once, apart from for specific care (Table 68).

More than half the women considered that the professionals were very present, 38.6% fairly present, 7.3% barely present, and 1.1% unavailable during this hospitalization. More than 85% were very or fairly satisfied by the methods used for pain relief after childbirth, and 6.1% had no pain.

Three-quarters of the women considered that the length of their stay at the maternity ward was appropriate, while 18.8% thought it was too long (Table 68).

In view of the current debate on obstetric violence, the 2-month follow-up questionnaire endeavored to collect women's experience of their health care professionals' behavior during their pregnancy and childbirth (Table 69). Accordingly, 12.1% of women reported inappropriate comments sometimes or often, 6.7% inappropriate procedures/actions sometimes or often, and 10.6% inappropriate attitudes sometimes or often. These words, procedures, or attitudes could have occurred at any time during the pregnancy (including at ultrasound scans or emergency visits) or at delivery (including during anesthesia placement), but took place principally during the maternity ward stay (47.2%). According to 4.2% of women, the professional or professionals never asked for permission before a digital cervical examination, 11.0% did sometimes, and 78.0% reported that the request for consent was routine (Table 70). During labor and delivery, among women exposed to these interventions, nearly 20% reported that their consent was not asked for oxytocin administration during labor, 51.8% that it was not asked for the episiotomy, and 34.5% for an emergency cesarean (Table 70).

In 2021, questions assessing women's health literacy (*individuals' motivation and competence to find, understand, assess, and use information for making decisions about their health*) were asked for the first time in this survey. As during the interview at the maternity ward, questions from module 6 (module: Capacity to

engage with health care professionals) from the HLQ, validated in French (Osborne et al., 2013; Debussche et al., 2018) were asked of women during their 2-month follow-up about their degree of health literacy during the delivery and subsequent stay at the maternity ward. A threshold below 3.5 expressed a low level of literacy. Table 71 summarizes the results. The mean of the 5 items of HLQ module 6 was 4.3 with 11.4% of the women obtaining a score below 3.5. These results must be examined in greater depth to understand the characteristics of the women who had difficulties in having good discussions with health care professionals during their delivery and their maternity ward stay — difficulties that prevented them from obtaining answers to their questions.

III-1-4 Organization of the return home

In the postpartum period, 79.1% of women were visited at home by a midwife after their discharge from the hospital (Table 72): 21.8% had one visit, 39.4% 2 visits, and 38.8% 3 or more visits. In nearly half of these cases, these visits were organized by the PRADO, a program to support return home *(Programme d'accompagnement du retour à domicile)*.

Similarly, 19.5% of women had visits from a specialized child-care attendant at home: a single visit for 38.8%, 2 visits for 23.5%, and 3 or more visits for 37.7%. These visits were organized principally by local PMI programs (71.0%).

III-1-5 Women's health

Nearly 70% of the women reported they had been vaccinated against pertussis during the past 10 years. This vaccination was up-to-date before the pregnancy for 48.8%; another 17.1% were vaccinated after their delivery (Table 73). Only 1.4% of women were vaccinated during pregnancy, consistent with the vaccination calendar recommendations at the time of the survey. In 2022, that is, after this survey took place, the HAS issued new guidelines to vaccinate women at each pregnancy (HAS, 2022). In the 2021 ENP, 15.6% of women reported they did not know their vaccine status for pertussis.

In 2021, 1.9% of women reported they were disabled. Among them, 68% to 80% (depending on the particular moment) considered that the management of these disabilities during pregnancy, delivery, and the post partum was adequate (Table 73).

Their difference in weight from before pregnancy to 2 months post partum was calculated. The results present the mean according to the women's prepregnancy BMI. The women initially underweight (prepregnancy BMI less than 18.5) weighed a mean of 6.1 kilos more at 2 months post partum; those with a BMI between 18.5 and 24.9 weighed 4.6 kilos more; those with a BMI between 25 and 29.9 3.5 kilos more, and those with a prepregnancy BMI $\geq$ 30 weighed globally the same as they had before this pregnancy (0.3 kilo) (Table 73).

For contraception at 2 months post partum, 39.3% of women were taking the pill, 20.3% using condoms, and 10.3% an intrauterine device, while 24.0% reported not using contraception (Table 73). Nearly one third of the women reported they had not resumed sexual activity at 2 months post partum.

III-1-6 Mental health at 2 months and feelings since return home

We used the Edinburgh Postnatal Depression Survey to assess the risk of postpartum depression. It includes 10 items and can be scored between 0 and 30. A threshold ≥ 13 was selected to define the risk of depression (Levis et al., 2020). A clinical examination is nonetheless necessary to validate this diagnosis. This scale has been validated in French (Cox et al., 1987; Guedeney et al., 1995). The 2021 ENP thus allows us for the first time to assess at a national level the frequency of postpartum depression: 16.7% of the women had a score ≥ 13 (Table 74), near the rate observed in other studies (Woody et al., 2017).

Moreover, 13.1% of women had already had received care for at least 3 months since adolescence with a psychologist and 4.4% with a psychiatrist, and while 2.3% had a previous psychiatric hospitalization. These data will be more specifically analyzed to explore the determinants of postpartum mental health in France.

Around 17% of women reported perceiving the period since the birth as difficult or very difficult. More than one third of women had fewer than 3 close friends or family members whom they could ask for help in case of serious personal difficulties (Table 74).

A quarter of the women reported at 2 months that they still had physical pain associated with childbirth.

III-1-7 Life situations

After 2 months, most women reported they had not resumed work, a finding consistent with the legal duration of maternity leave in France; only 2.2% had returned to work (Table 75).

For childcare, 31.5% of women were planning an individual (child care worker) and 30.4% a collective (daycare center, full or part-time) solution; 30.1% expected that she and her partner would handle it all, while 13.5% were counting on help from family or friends.

III-1-8 Toxic substance use

Among the women who smoked before pregnancy, 87.5% stated that they had reduced or stopped smoking while pregnant (Table 76); principally for their child's health (99.3%) and sometimes also their own (55.9%).

At 2 months after giving birth, 14.6% were smoking standard cigarettes, 1.5% electronic cigarettes (vaping), and 0.6% both (Table 77). Those who were smokers smoked a mean of 8.2 cigarettes a day. Less than 1% of the women reported they had used cannabis since their return home.

When asked about alcohol consumption, 64.9% of the women had not had any, 15.0% reported drinking once a month or less, 14.8% 2 to 4 times a month, and 5.3% 2 to 3 times a week or more. For those who

drank, the weekly mean was less than a glass for 50.9% of the women, from one to 4 glasses for 44.0%, from 5 to 10 glasses for 4.7%, and 11 glasses or more for 0.4%.

III-1-9 Advice received from health care professionals

In 2021, 81.9% of the women reported they had received information about the role of the PMI (protection of mothers and infants) and how to contact their program (Table 78). This information was given to 46.0% of women during pregnancy, to 61.0% at the maternity ward, to 67.4% after they returned home, and to 46.9% during an earlier pregnancy.

Around half the women (49.6%) reported receiving advice for calming or soothing their crying child (Table 78). This advice came from the professionals at the maternity ward for 63.1%, from family and close friends for 76.1%, from professionals in private practice for 81.8%, and from the PMI program for 39.1%.

It is recommended that children be placed in a supine position, that is, lying on their backs, to sleep to reduce the risk of sudden unexplained infant death (HAS, 2020); 37.9% of respondents had received this advice during pregnancy, 76.2% after delivery at the maternity ward, and 43.2% after discharge. That still left 6.7% of women who had not received advice about placing babies on their backs to sleep (Table 78).

III-1-10 The child's health status

More than 95% of the children returned home at the same time as their mother (Table 79). In 0.2% of cases, the child went home before the mother and 3.7% after her. At the time the mothers completed the 2-month questionnaire, 0.7% of the children were still hospitalized.

Among the children who had gone home, the 2-week pediatric examination had been performed by a pediatrician (39.5%), a general practitioner (34.9%), a PMI physician (6.8%), or another professional (6.5%) (Table 79). We note that 12.3% of the children did not have this examination.

At 2 months of life, the professional caring for the child was generally a pediatrician (43.1%) or a general practitioner (42.2%) — both in private practice (Table 79). For 12.3%, it was a professional at the PMI.

At 2 months, 15.3% of women reported that their child was vaccinated against tuberculosis and 8.5% against rotavirus (Table 79).

In all, 15.7% of children had been taken to the emergency department, mostly between 9 and 30 days of life; 7.2% had been hospitalized since leaving the maternity ward (Table 80).

III-1-11 Nutrition of the child

Among the 74.2% of women who had begun breastfeeding, only 38.4% were still practicing exclusive breastfeeding at 2 months; 30.2% reported having received support from health care professionals for problems associated with breastfeeding since they left the maternity ward. This support was provided at home visits (72.2%), or consultations (62.9%), or by telephone (30.1%). Nonetheless 16.8% stated that they

had not received support, even though it would have been useful (Table 81). Among the women who had stopped breastfeeding, 27.7% had done so within 7 days of the child's birth, 28.2% between 8 and 21 days, 32.2% between 22 and 45 days, and 11.9% after 45 days. At 2 months, 34.4% of women were breastfeeding exclusively, 19.8% doing mixed feeding, and 45.8% giving their children commercial formula.

It should be noted that when women were asked about their psychological health and the sources of perceived difficulties since their return home, nearly half (48.7%) mentioned sometimes complicated breastfeeding (Table 74).

EPIFANE is an ancillary survey to the 2021 ENP, conducted by Santé publique France. It followed up the women and children for a year to explore the changes in the children's feeding during the first year of life as well as the difficulties mothers encountered in implementing breastfeeding.

III-1-12 Sleep for mother and child

Most women (70.7%) reported that their child was sleeping alone in their own bed in the parents' bedroom, as recommended up to at least 6 months of age (Kassa et al., 2016); 15.6% of the children slept alone in their own room and 12.4% in their parents' bed (Table 82). According to 79.6% of women, their child was always put to sleep on her back; another 11.6% said their child was often put to sleep in this position. Less than 5% of women reported laying the child down on the stomach often or always, and less than 10% laterally (on the side) often or always.

Asked about their child's sleep the week before they completed the questionnaire, 36.8% of women reported that he or she woke up once a night, 29.0% twice a night, and 16.7% 3 or more times each night. On average over the previous 7 nights, they estimated that they themselves had slept for 4.6 hours in a row between 23:00 and 6:00 (Table 82). When asked about their psychological health and sources of perceived difficulties since their return home, more than 9 in 10 women mentioned fatigue (Table 74). This was by far the leading source of perceived difficulty.

III-1-13 Use of hygiene and cosmetic products

From 12% to 26% of women reported having changed at least one of their habits for at least a moment (before, during, or after this pregnancy or a preceding one). All products appeared to be affected by these changes (Table 83). To pinpoint the determinants of these behaviors more precisely, these questions must be analyzed in greater depth.

III-1-14 Violence against women

In 2021, 6.0% of the respondents to the 2-month follow-up reported being subjected to psychological violence during pregnancy (3.7%), since giving birth (0.5%), or both (1.8%) (Table 84). In more than half of these cases, the violence was repeated (performed at least twice). The perpetrator of the psychological

violence was the partner of 25.3% of the women reporting such violence, another man she knew (31.3%), a woman she knew (24.4%), a man she did not know (19.2%), or a woman she did not know (13.9%).

Physical violence was reported by 1.3% of women: during pregnancy (0.9%), since giving birth (0.2%), or both (0.2%) (Table 84). In 27.7% of the cases, this physical violence was repeated (performed at least twice). The perpetrator was the partner in 34.5% of cases, another man in 45.1%, and another woman in 19.1%.

Finally, 0.3% of the women reported experiencing sexual violence by a man during pregnancy and/or since the birth. The number of individuals was too small to describe the timing or perpetrator reported by the women in further detail.

As in 2016, the questions on this topic of major importance will be analyzed more specifically (Maciel et al., 2019).

PART IV – RESULTS ABOUT THE ESTABLISHMENTS

IV-1 Changes in the health care supply

The results presented in this part of the report come from the responses to the "Establishment questionnaire." This section describes the maternity unit characteristics (also available from the annual statistics of establishments (SAE)), their environment, the profiles of the teams providing care, their organization of care/management, and the trends observed since the preceding survey in 2016. The analysis is detailed for each variable of the questionnaire according to the authorized level of neonatal care (Level I, IIA, IIB, and III) and size, assessed by annual deliveries, in 6 categories (<500, 500-999, 1000-1499, 1500-1999, 2000-3499, and ≥3500). The status of the facilities is presented in Tables 85a and 85b, together with their geographic distribution across metropolitan France. The characteristics of the birth centers are presented separately because of their organizational specificities.

On March 15, 2021, metropolitan France had 456 maternity units and 6 birth centers, compared with 497 maternity units in March 2016, that is, 8.2% fewer maternity units in 5 years. Since 1995, the number of maternity units has been reduced by nearly 50%: 816 maternity units in 1995, 756 in 1998, 618 in 2003, and 535 in 2010 (data from the previous editions of the ENP, available on the ENP website). This reduction in the number of maternity units must be compared with the regular diminution in the number of live births in metropolitan France — around 12% since 2010. The number of live births, which fell below 698,000 in 2020 (and climbed back up to around 702,000 in 2021), is historically the lowest rate recorded since 1995, date of the first edition of the ENP: more than 729,600 in 1995, 738,000 in 1998, 761,500 in 2003, 802,200 in 2010, and 744,700 in 2016 (INSEE, 2022).

Three maternity units refused to participate in the 2021 ENP, that is, less than 1% of establishments. This figure is stable in relation to 2016 (n=4). All 3 were private for-profit maternity units, 2 level I and one level IIA; together they had a total of 80 deliveries overall during the survey week.

Since October 9, 1998 (JOFR, 1998), 2 decrees, known as the "perinatal decrees," have defined the conditions for opening and the technical conditions for operating establishments providing gynecology and obstetrics care, to ensure the quality and safety of the care they provide. These rules concern the staff, the premises, and the organization. They define 4 levels of maternity units, corresponding to 3 levels of neonatal care. Level 1 maternity units receive physiological pregnancies; facilities with a neonatology department on the same site as the obstetrics department are level IIA or IIB. Level IIB maternity units have beds and equipment enabling more intensive neonatology care than level IIA can provide. Level III maternity units are able to manage at-risk pregnancies, with a neonatal intensive care department, resuscitation equipment, and a neonatology department.

The regulations concerning the premises and the staff required for the functioning of the maternity units vary according to their volume of deliveries. Every birth sector must have at least one labor room. The decree dated April 25, 2000, specifies that the minimum number of labor rooms is one additional room per 500

additional deliveries, up to 3000 deliveries per year and one additional room per 1000 additional deliveries above 3000 (that is, 2 rooms if the maternity ward has from 500 to 1000 annual deliveries, 3 rooms for 1001 to 1500 deliveries, 6 rooms for 2501 to 3000, 7 rooms for 3001 to 4000...). The minimum number of prelabor rooms is 1 per 1000 deliveries per year.

According to the perinatal decrees of 1998, in full-time equivalents, at least one (full-time equivalent) midwife must always (24/7) be present in a birth sector for a maternity unit with fewer than 1000 births per year. One additional midwife must be operational for every 200 additional births. For physicians, in a maternity ward with fewer than 1500 births per year, at a minimum and always (24/7), one gynecologist-obstetrician and one anesthesiologist must be on-call offsite and a pediatrician must be available, — all able to be present in a time compatible with the imperative of safety. Above 1500 births per year, at a minimum and at all times (24/7), a gynecologist-obstetrician and an anesthesiologist must be present, the first in the maternity ward and the second on the site of the maternity ward; a pediatrician must be safely on-call offsite. An anesthesiologist must be present at all times (24/7) in an obstetric unit with more than 2000 births a year. Pediatricians must always be present during the day in neonatology departments and, at a minimum, on-call onsite at night (IIA maternity units), and must be present at all times (24/7) in units providing intensive care (level IIB) and intensive care with neonatal resuscitation (level III).

IV-1-1 According to the level of neonatal care

The distribution of these types of establishments did not differ between 2016 and 2021 (Tables 85a and 85b).

Among the maternity units participating in the 2021 ENP, 37.5% were level I, 30.7% level IIA, 18.5% level IIB, and 13.3% level III.

IV-1-2 According to status

The distribution of maternity units by status did not differ significantly between 2016 and 2021 (Tables 85a and 85b). The number of community hospital centers fell by around 9% (287 in 2016 versus 269 in 2021), and the number of private for-profit facilities by around 8% (Table 85a).

The disparities between the regions for the proportion of activity performed by private for-profit establishments remained quite marked, as in 2016 (Table 85a). That is, the proportion of deliveries taking place in this type of structure within each region varies from approximately 10% in Bourgogne Franche Comté to nearly 45% in Occitanie. The mean is approximately 23% and has fallen noticeably since 2016 (Figures 2 and 3).

Figure 2: Distribution of private establishments in metropolitan France in 2021, by region

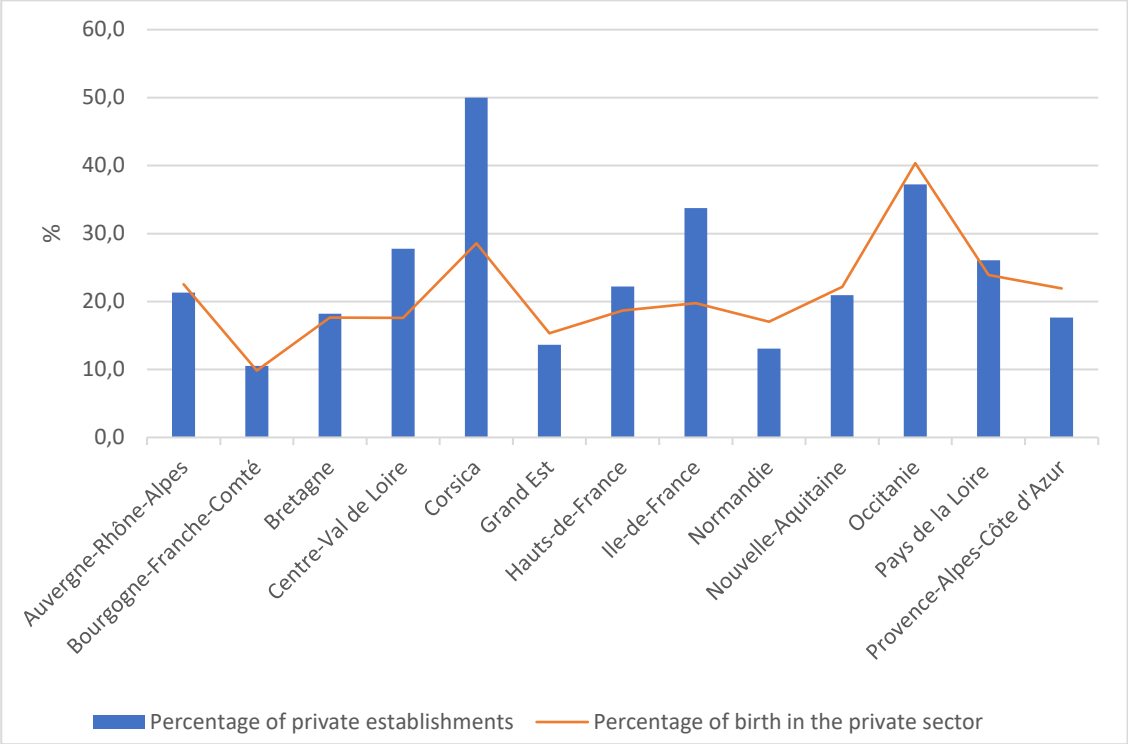
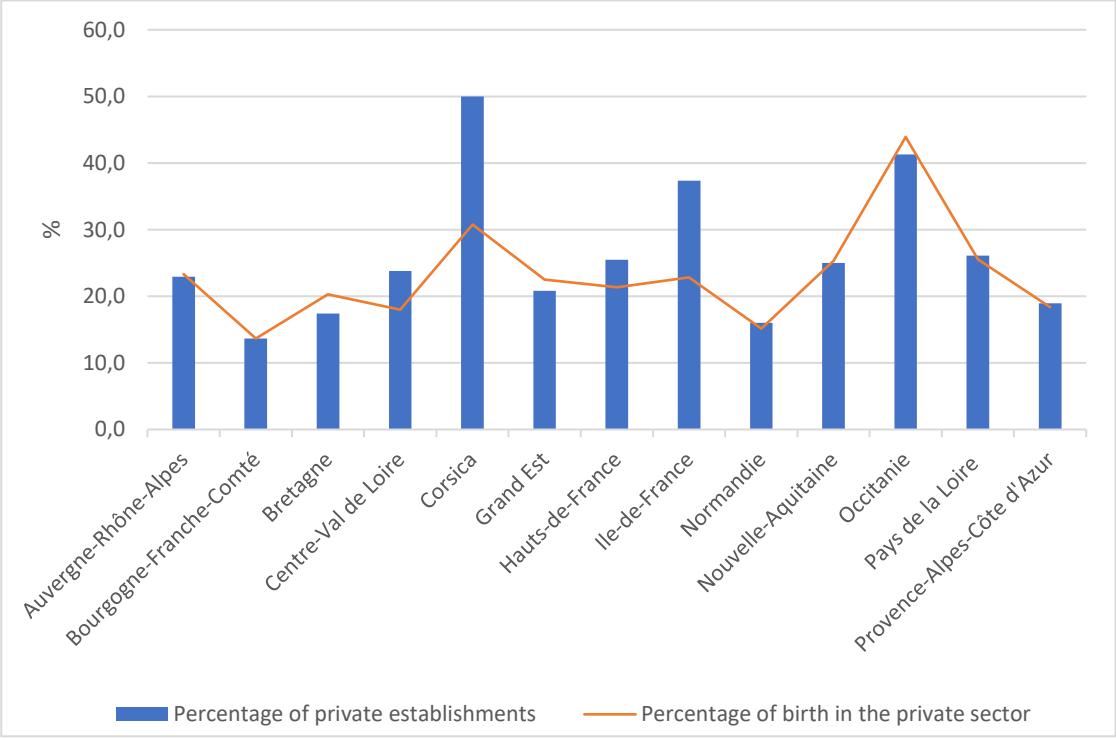


Figure 3: Distribution of private establishments in metropolitan France in 2016, by region



IV-1-3 According to size

The distribution of maternity units by size did not differ significantly between 2016 and 2021 (Table 85a).

IV-1-4 Association between maternity unit level, status, and size

The size, the level of care, and the status of maternity units are interlinked: the 60 level III maternity units are all public and have at least 1500 deliveries per year (Tables 85a and 85b).

The maternity units with fewer than 500 deliveries a year are all level I, with the exception of one type IIA unit. Most are part of the public sector: regional or community hospital centers: 78.4%.

Private for-profit maternity units are mainly level I (55.0%) and level IIa (38.5%). In this sector, the maternity units that have closed since 2016 are essentially level I units and those of an intermediate size.

The size, status, and geographic distribution of these establishments did not change significantly between 2016 and 2021.

IV-1-5 Regional comparisons in metropolitan France

The regional distribution of births by level of neonatal care provided did not change significantly between 2016 and 2021 (Table 85a).

Maternity unit closures concerned all regions except Corsica and Pays de la Loire. The closures affected the regions of Grand Est and Hauts de France most strongly; 6 maternity units closed in each region during this interval. Overall, each region lost a mean of 3.1 maternity units in 5 years. As in 2016, Corsica had no level III establishment. Five regions did not have any establishment with 3500 or more annual deliveries: Bourgogne Franche Comté, Corsica, Grand Est, and Normandie. Ile de France, on the other hand, had no maternity unit with fewer than 500 deliveries per year.

IV-2 Equipment and record-keeping within the maternity units

IV-2-1 The obstetric operating room

The location of the obstetric operating room has evolved since 2016. An increasing number of maternity units reported they had an operating room for performing cesareans in the birth sector or contiguous to it (+13.4% compared with 2016, all levels combined) (Table 86a). The change in location was especially notable in the level I units: an additional 20% now have direct access to an operating room. In 2021, all maternity units with 2000 deliveries or more reported an operating room for cesareans in or contiguous to the birth sector (Table 86b).

IV-2-2 Post-anesthesia care unit, intermediate care unit, and adult intensive care/resuscitation unit

The number of maternity units reporting a 24/7 post-anesthesia care unit (recovery room) increased significantly between 2016 and 2021, reaching 90.5% (+5%) (Table 86a). This figure remained stable at 98.3% for the level III maternity units. Units with fewer than 500 deliveries per year also had access more often to a 24-h recovery room (+16% in 5 years) (Table 86b).

The presence onsite of a continuous surveillance unit remained stable between the 2 periods and reached nearly 84% in 2021.

The maternity units did not have significantly more adult critical care units within the establishment than in 2016.

For the facilities without an adult intensive or critical care department onsite, 41.1% of maternity units transferred women to an establishment at least 30 kilometers away, compared with 37.5% in 2016 (Table 86a). It was especially the maternity units with fewer than 500 annual deliveries (85.4%) that most often reported having to transfer mothers to an intensive care unit at least 30 kilometers away (Table 86b).

IV-2-3 Newborn care

The number of maternity units reporting a kangaroo care unit (neonatology unit integrated either in a maternity ward within the birth suites (the newborn receiving care in the mother's room), or in a neighboring neonatology unit adapted to receiving parents 24 h a day (midwives come to care for the mother) increased by 10% since 2016; they are now available in 41.3% of establishments (Table 86a). This increase affected all levels of maternity units, exceeding 15% in level IIA and III units and in those with 3500 or more deliveries per year. It even doubled in establishments with 1000 to 1499 annual deliveries from 2016 to 2021, when the number of kangaroo care units reached 41.1% (Table 86b).

In 2021, three quarters of the facilities reported having a nursery where several newborns could be placed when their mothers found it necessary for various reasons (Table 86a).

Among the maternity wards with a neonatology department, more than half the level III units reported they had established a developmental care program (including, for example, NIDCAP, a neonatal individualized developmental care and assessment program). The objective of these program is to protect the cerebral development of these neonates, essentially born before term, by reducing the stress associated with the environment and with care (too much noise, excessive light, etc.) (Ohlsson et al., 2013). They also allow parents to have an important role interacting with their new infant throughout the entire duration of hospitalization. Management is thus individualized to each child's health status. The department staff are strongly involved and must observe the child's course and adapt their care.

The maternity units with the most deliveries are the most likely to set up this type of program; it thus exists in 58.3% of those with 3500 or more annual deliveries (Tables 86a and 86b).

IV-2-4 Support for women with reduced mobility

In 2021, maternity units were slightly more often equipped to receive women with reduced mobility (77.7%) but the difference since 2016 was not significant (Table 86a). It was mostly the maternity units with fewer than 500 deliveries a year that acquired this equipment (+28%) between the 2 surveys (Table 86b).

IV-2-5 Neighborhood perinatal centers

Almost 32% of the maternity units in metropolitan France work in a network with one or several neighborhood perinatal centers (Table 86a).

IV-2-6 Medical file management

Although computerization of medical files accelerated between 2016 and 2021, it is difficult to compare the 2 surveys for this question because of the change in the formulation of the responses. In 2021, fewer than 15% of establishments reported using only paper patient records, and 24.9% exclusively computerized patient files (Table 87a).

When the records were at least partly computerized, 63.1% of establishments did not use the same template as network or local partners nor did they share their records with them (Table 87a). Among the 36.9% of the maternity units with identical computerized files (shared or not), most (61.1%) shared them with some structures in their perinatal network. It is most frequently level IIA units and those with fewer than 1000 deliveries a year that use identical files throughout the network (Tables 87a and 87b).

IV-2-7 Coding for the medical information program (PMSI)

In nearly 8 in 10 maternity units, coding for both maternal and neonatal hospitalizations is performed by staff in the department of medical information (DMI) (Table 88a). Midwives also collaborate actively in this activity since half the establishments stated that they assign this task to midwives for maternal hospitalizations and 30.5% for neonatal hospitalizations. The senior physician has a role in 26.3% of the coding for maternal admissions and the pediatrician for 31.4% of infant hospitalizations.

IV-3 Personnel in the delivery room

The formulation of the questions changed between the 2 surveys and makes comparisons difficult. In 2016, the question concerned the birth sector (including the gynecologic and obstetric emergency departments), while in 2021, only the "delivery room" sector was included.

IV-3-1 Medical staff in the delivery ward

In 2021, there remained a few level I (n=5) and IIA (n=1) maternity units in which a physician qualified to perform cesarean deliveries was not always available (Table 89a).
The permanent presence (24/7) of an obstetrician-gynecologist in the establishment tended to increase between 2016 and 2021, mainly in maternity units with fewer than 1500 deliveries (Table 89b).

The systematic presence of a pediatrician in establishments increased significantly over these 5 years and reached almost half of all maternity wards in 2021. The higher the level of neonatal care authorized, the more often a pediatrician was systematically present, in accordance with the 1998 Perinatal decrees (Table 89a).

An anesthesiologist-critical-care specialist was always present onsite in 85.9% of establishments in 2021, not significantly different from 2016. In accordance with regulations, this specialist's presence at all times (24/7) depends on the size of the maternity unit.

The permanent presence of residents in obstetrics-gynecology and in pediatrics was stable between 2016 and 2021. In 2021, it reached more than 34% for obstetrics-gynecology residents and 22.5% for pediatrics residents.

On the other hand, the permanent presence of residents in anesthesiology-critical care medicine has tended to increase since 2016 and concerned nearly 24% of maternity units in 2021. This was especially notable in level III maternity units where it rose from 75.0% in 2016 to 88.3% in 2021 (Table 89a). Based on the number of annual deliveries, the presence of anesthesiology residents increased in all categories of establishments, except for maternity units with fewer than 500 deliveries annually, where there were none, and in maternity units with 3500 or more deliveries, where their presence fell slightly from 77.8% in 2016 to 72.0% in 2021 (Table 89b).

The number of midwives present day and night during the week or during the day on weekends appeared to rise slightly between 2016 and 2021 in level IIB and III facilities (Table 90a). The higher the volume of deliveries, the higher the number of midwives present (Table 90b). Nonetheless, the data from 2016 and 2021 cannot be compared because of the different formulation of the questions in those 2 surveys: in 2016, we asked for the number of midwives for the entire birth sector (including the emergency departments), while in 2021 only the number in the delivery room sector was requested. Moreover, the number of individuals in 2021 remained very substantially below the proposals by the professional societies (CNGOF, 2018).

The establishments essentially do not use the offsite on-call system for midwives.

IV-3-2 Nurses and paramedical personnel

The mean number of nurses, nurse-anesthetists, and paramedical staff in the delivery room (medical assistant, and nurses' aides) seemed to remain stable between 2016 and 2021 (Tables 90a and 90b).

IV-3-3-Temporary employees

In view of the shortage of medical staff in maternity wards, questions about their use of temporary workers were added in 2021. Half the maternity units employed temporary obstetrician-gynecologists in 2021 (Table 91a). Level I maternity units did so most often and most regularly — at least several times a month (Table 91b). The large hospitals and the level III units used temporary obstetrician-gynecologists quite rarely. Among the maternity units using these employees several times a month, most of the professionals (7/10) were on-call several times a month in the department and thus accustomed to its rules and personnel.

The trend was essentially the same for employment of temporary anesthesiologists (Tables 91a and 91b). Almost half the maternity units used them. By level of neonatal care, level III units used them the least: 66.6% not at all, with the rest evenly divided between less than once a month and several times a month. Similarly, the more deliveries at a maternity unit, the less often they used temporary anesthesiologists. In both categories, the units using them several times a month most often used the same individuals, who thus know the department well or very well (79.4% of the time overall for level of care, and from 70% to 100% by facility size).

For pediatricians, 41.3% of maternity units reported using temporary employees: occasionally (19.2%) or more regularly (22.1%). The higher the level of neonatal care (Table 92a) and higher the number of deliveries (Table 92b), the less often temporary pediatricians were used. It was thus principally in level IIB establishments and mid-sized maternity units (1000 to 3499 deliveries, slightly more than 60%) that the temporary pediatricians knew the department least well.

Finally, 38.4% of maternity units used temporary midwives (Table 92a). Again, the higher the level of care, the less often the maternity unit used temporary midwives. On the other hand, when it did use them often, that is, at least once a month, at least 95% of these midwives knew the department well. We note also 84.6% of the temporary midwives in maternity units with fewer than 500 deliveries per year knew the department compared with at least 95.5% in the largest establishments (Table 92b).

IV-4 Prenatal care

IV-4-1 Psychological care

It was possible in 2021 to see a psychologist in nearly every maternity unit (99.1%), as it was in 2016 (Table 93a). In 2021, most maternity units reported a psychologist was available in-house (defined as in either the department or the facility). The number of deliveries in the maternity ward did not influence the possibility of a patient seeing a psychologist (Table 93b).

In 2021, nearly 80% of maternity units could call on a psychiatrist as well. Nearly half had a psychiatrist available in-house. The higher the maternity unit level and the higher the number of annual deliveries, the greater the possibility of seeing a psychiatrist in-house (Tables 93a and 93b).

In 2021, 46.8% of maternity units reported access to a child psychiatrist, including 27.2% in-house. The higher the unit's level of care, the greater the possibility of access to an in-house child psychiatrist. Three level I maternity units in 10 worked with a child psychiatrist in-house or in their network. More than half the maternity units with 2000 or more deliveries per year had a child psychiatrist available in-house.

IV-4-2 Specific consultations

Access to a consultation with a specialist in smoking cessation has risen significantly since 2016: 87.6% of maternity units in 2021 compared with 77.4% in 2016 (Table 94a). All establishments — regardless of level of care or number of annual deliveries — favored setting up this kind of consultation in the department (Tables 94b).

The same was true for consultation with specialists in alcohol issues (Tables 94a and 94b). Maternity units have substantially enhanced this type of care within their department; it has increased from 5.9% in 2016 to 20.7% in 2021 (and 66% in-house). Almost 17% of maternity units worked with an outside expert in alcohol problems in 2021.

The number of maternity wards with access to a consultation in addiction medicine also increased significantly from 65.9% in 2016 to nearly 82.6% in 2021 (Table 94a). The higher the level of neonatal care, the more often consultation within the department could take place, rising from 11.2% in 2016 to 19.9% in 2021. All maternity units saw an increase in the possibility of access to a consultation in addiction medicine, with size also affecting access. Associations with exterior specialists also made it possible to strengthen the

availability of this care. In 2021, all maternity units with 3500 or more annual deliveries had access to a consultation in addiction medicine, including 20.0% by referral outside the establishment (Table 94b).

In 2021, a very large majority of women could have a consultation in nutrition, mostly in-house (88.3%). In particular, these consultations were directly proposed in the department of 60% of level III maternity units. External referrals were not favored: only 5.3% of maternity units offered them for nutrition. It was essentially the maternity units with more than 2000 deliveries yearly that could provide nutritional follow-up in-house. Around 72.9% of all maternity units and 60% of those with fewer than 1500 annual deliveries had access to a nutritionist consultation in-house (Table 94a).

IV-4-3 COVID-19 Screening

By January 1, 2021, 59.0% of establishments had set up systematic screening for COVID-19 infection at delivery (Table 95a). The maternity units with fewer than 500 annual deliveries invested substantially in this screening: it was in place in 76.5% of them. Inversely, only 32.0% of the maternity units with 3500 or more annual deliveries had implemented this routine screening (Table 95b). These differences are probably explained by the greater logistic difficulties (personnel, laboratory, and circuit for asymptomatic positive patients) for the maternity units with more deliveries and therefore more women to screen.

The polymerase chain reaction (PCR) test was most often performed for this routine screening: 71.1% of maternity units used only this test and 7.2% combined it with an antigen test, depending on the clinical situation. The maternity units using it most often were those with 1500 to 1999 annual deliveries (Table 95b).

IV-4-4 Refused registrations

Establishments refused significantly less often than in 2016 to register women at low risk living far from the maternity ward. We note that the number of maternity units without a registration system was halved — from 33.8% in 2016 to 16.1% in 2021. Level I and II maternity units refused registration least often, while nearly 30% of level III units could refuse registration in 2021 (Table 95a). Those with 3500 or more deliveries per year refused registration most often (48.0%), unlike the other types of facilities, which had low rates of — or even no — refusals (from 0% to 1.1%).

IV-4-5 Management of women in vulnerable or precarious situations

Maternity units had access to a dedicated social worker working exclusively in the department significantly more often in 2021 than in 2016 (54.1% versus 39.9%) (Table 95a).

The establishments with the most annual deliveries were those with the most frequent access to a social worker dedicated to the department, although all maternity units increased this service within their departments (Table 95b).

Two trends were observed in relation to ways to facilitate the management of these women in vulnerable or precarious situations. Access to the PASS (*Permanence d'Accès aux Soins de Santé*) enabling women to receive both inpatient and outpatient hospital-based care did not change significantly between 2016 and 2021 (more than 35% of maternity units have systematic access for their patients, and another 21% nonsystematic access. At the same time, access to another system dropped notably, from 53% to less than 29% in 2021. Another means of facilitating the management of women in vulnerable or precarious situations is through multidisciplinary staff meetings, which have expanded from 36.5% of maternity units in 2016 to nearly 52% in 2021; 76.0% of maternity units with 3500 or more deliveries per year had such staff meetings in 2021 and almost half of those with fewer than 500 deliveries per year.

In 2021, professionals from the PMI programs came regularly to establishments and participated in staff meetings devoted to precarious populations in approximately 80% of establishments (Table 96a). The maternity units with fewer than 500 annual deliveries were all linked to PMI programs. Almost 90% have regular and close contacts (Table 96b).

The exchanges between establishments and PMI programs are formalized by written agreement in 50.7% of maternity units. The higher the level of neonatal care, the more formalized these links.

In 2021, 51.4% of maternity units reported systematically informing patients about the role of the PMI program and how to contact it (Tables 96a and 96b). The higher the level of care, the more systematically this information was provided. Similarly, the maternity units with the largest number of annual deliveries reported giving women this information most often.

In 2021, nearly 90% of maternity units reported using a method for facilitating communication with and care of non-French-speaking patients and their families. Use of interpreters for consultations was rare, with not quite 14% of maternity units reporting them (Table 96a). Interpreters were used most frequently in level III units and those with 3500 or more annual deliveries; approximately 40% used interpreters sometimes (Table 96b).

IV-5 Management in the delivery room

IV-5-1 The birth plan

In 2021, birth plans were widely suggested; more than 65% of establishments reported that they often or routinely proposed that women write a birth plan (Table 97a). The smaller maternity units reported proposing this systematically more often (Table 97b).

IV-5-2 Physiological spaces

In 2021, significantly more maternity units had "physiological spaces" — that is, non-medicalized more homelike spaces for women at low risk and not planning on epidural analgesia: 69.3% compared with 40.1% in 2016. All units increased the number of these spaces, but the increase was especially notable for level I maternity units, where the proportion with at least one such space rose from 37.0% in 2016 to 67.1% in 2021, as well as level IIA (from 44.0% to 72.7%) and IIB (from 35.9% to 70.2%). This trend was also very marked by the number of deliveries; maternity units with fewer than 500 deliveries per year went from 15.9% with at least one physiological space in 2016 to more than 45.1% in 2021. Among those with 1000 or more annual deliveries, more than 70% had some physiological space in 2021 (Tables 97a and 97b).

The majority of maternity units authorized births within these physiological spaces in 2021 (87.9%) more often than in 2016 (79.8%). All levels and sizes of maternity units reinforced this type of service compared with 2016.

On the other hand, the number of bathtubs in these rooms has remained stable since 2016. More than 90% of the maternity units with a physiological space have at least one bathtub, but only 10.9% allow water births. We nonetheless note that maternity units with 3500 or more annual deliveries authorized water births more often than they did in 2016: 20.0% versus 0.0%.

IV-5-3 Access to the technical equipment and facilities

Almost twice as many maternity units reported that they allow access to their technical equipment and facilities for midwives in private practice: 21.2% in 2021 versus 12.1% in 2016 (Table 97a). It is principally level II maternity units and those with fewer than 2000 deliveries per year that reported such access for community midwives. The data collected do not allow us to assess the activity of the technical equipment and facilities.

IV-6 Postnatal care

IV-6-1 Breastfeeding support

The presence in the department of at least one consultant or staff expert for breastfeeding increased significantly from 67.3% in 2016 to almost 75.9% in 2021 (Table 98a). This increase took place principally in level I maternity units, rising from 54.3% to 68.2%. This trend also appeared in the analysis by number of annual deliveries, where the facilities with fewer than 1500 deliveries per year most often developed the availability of an expert for breastfeeding (Table 98b).

In 65.0% of establishments, this work was only part-time. Only 4.1% of maternity units had a staff person devoted to this activity full time. This service was available full time most often in level III maternity units, but only in 16.7%.

In 68.5% of maternity units, the breastfeeding consultant held meetings for teams to try to standardize practices. The higher the unit's level of care, the more often it organized these team meetings. Depending on the unit size, at least 60% had team meetings on this topic.

The possibility of follow-up with this breastfeeding expert after discharge fell from 83.2% in 2016 to 75.5% in 2021 (Table 98a). This reduction was most marked in level III maternity units, where the possibility of follow-up fell by 12 percentage points from more than 80.0% in 2016 to 68.5% in 2021.

In 2021, more than half of all maternity facilities reported an association with a lactarium. The higher the level of neonatal care, the higher the proportion of lactarium associations — at 26.6% for level I to more than 91% for level III. Similarly, the more deliveries in the maternity unit, the more often it was associated with a lactarium. These figures ranged from 15.7% for those with fewer than 500 annual deliveries to 84.0% for those with 3500 or more.

In 2021, 65.1% of maternity units reported informing women of the possibility of donating their milk to a lactarium (Table 98a). Again, the higher the level of neonatal care, the more frequently this information was distributed to women: 57.1% in level I maternity units and 85.0% in level III units. The maternity unit's size also influenced the information to women. Among the maternity units with fewer than 500 deliveries, 47.1% reported informing women about milk donations. The larger the maternity ward, the greater the percentage of units informing women.

IV-6-2 Neonatal screening

IV-6-2-1 Neonatal deafness

The protocol for screening for neonatal deafness did not change significantly between 2016 and 2021. All maternity units now have a protocol for this screening. The most frequent type of screening is by acoustic otoemissions, repeated if the first test is not conclusive. This sequence was used in 44.2% of maternity units in 2021 (Table 99a).

A catch-up procedure for infants discharged before this screening test was offered by 97.8% of the establishments in 2021 compared with 91.5% in 2016. Subsequent consultation in the department remains the preferred procedure for testing those discharged before the screening test; 53.0% of maternity units (stable since 2016) offered this possibility. This catch-up procedure was reinforced for all maternity units regardless of their size (Table 99b).

IV-6-2-2 Routine neonatal blood screening

In cases of early discharge, routine neonatal blood screening was offered before discharge on D2 in 75% of maternity units (Table 99a). This was the preferred procedure for establishments in 2021 (information not

available for 2016). Performance of a blood test by a community midwife at home fell from 71.3% in 2016 to 52.5% in 2021, regardless of facility size (Tables 99a and 99b).

IV-6-3 Home visits

The primary objective of the PRADO program to support return home is to guarantee a visit by a midwife on the family's return from the maternity ward after delivery, under the supervision of the principal national health insurance fund (*Caisse nationale de l'assurance maladie des travailleurs salariés,* CNAMTS). Home visits in this framework were proposed significantly less often by the maternity units in 2021, dropping from 83.5% in 2016 to 62.3% (Table 100a). This reduction concerned all types of maternity units. On the other hand, the offer of community midwife home visits outside of PRADO rose significantly from 70.4% in 2016 to 88.7% in 2021. Almost all level IIB maternity units proposed this visit (94.0%). This offer increased mainly in establishments with fewer than 2000 annual deliveries, rising, for example, from 56.1% in 2016 to 88.2% in 2021 for the maternity units with fewer than 500 deliveries a year (Table 100b).
Home visits by a midwife from the maternity ward were rare and stable between 2016 and 2021; 4.0% of maternity units offered this service in 2021.

Home visits by midwives or specialized child-care attendants from PMI programs, on the other hand, increased significantly from almost 65.8% in 2016 to 82.1% in 2021. This augmentation involved all levels and sizes of establishments.
The other modes of home support fell significantly over this period, from 22.5% in 2016 to 15.0% in 2021. This possibility dropped principally in maternity units with fewer than 500 annual deliveries, falling from 30.8% in 2016 to 12.2% in 2021, and in the units with 2000 to 3499 deliveries per year, from 28.6% to 13.5%. This type of support increased only in maternity units with 3500 or more deliveries per year; it rose from 11.5% in 2016 to 16.0% in 2021.

IV-6-4 Private practice-maternity unit links/coordination

In 2021, more maternity units reported systematically providing a liaison sheet between the maternity ward and private practitioners seeing the patient. This rate rose from 62.0% in 2016 to more than 89.2% in 2021 (Table 100a). The increase concerned all establishments regardless of their level or size; 96.0% of the maternity units with 3500 or more yearly deliveries reported providing a liaison form (Table 100b).

On the other hand, the provision by the hospital of contact information for a professional at the maternity ward whom a private practitioner can contact if necessary has remained stable since 2016 at around 62%. More small maternity units began offering this possibility, up from 68.6% in 2016 to 84.8% in 2021.

IV-7 Birth centers

In 2021, France had 6 birth centers, that is, freestanding midwifery units. Because of their particular functioning, we describe them separately here. They were authorized experimentally following the promulgation of decree n° 2015-937 on July 30, 2015, concerning the conditions of experimental birth centers in France and perpetuated by decree n°2021-1526 dated November 26, 2021 concerning birth centers (JORF, 2015 and 2021). They receive pregnant women at low obstetric risk for prenatal care and follow-up, preparation for birth and parenthood, and for delivery and immediate postpartum care. They are necessarily located close to a maternity ward (called the "establishment partner") able to provide immediate management of any maternal and/or fetal/neonatal complication. They thus have no level or type of authorization in obstetrics. Midwives provide exclusive management of parturients and a global follow-up. Thus, in regard to their functioning, only the relevant items of the "Establishment" questionnaire for the 2021 ENP were analyzed.

IV-7-1 The organization of birth centers

The 6 birth centers reported that in 2020 their midwives attended from 53 to 117 births (Table 101).

Birth centers must refuse to register women at low risk living far from their facility, given how they operate. That is, the midwives provide global follow-up, visiting the women at home in the hours and days after the birth. Thus, to ensure the security of the follow-up, the women must not reside far from the birth center.
The presence of midwives on weekdays, weekend days, and weeknights in the birth centers is variable (Table 101). That is, in some birth centers, no midwife is always present; in others, 2 midwives are present at all times. The number of midwives on call varies from 0 to 3. Thus some birth centers prefer an offsite on-call system, while others always have midwives onsite.

No temporary midwives are required because the group of midwives at the birth center provide continuity of care.

IV-7-2 Prenatal care

Five of the 6 birth centers are equipped to receive women with reduced mobility (Table 101).

Three centers simultaneously keep paper and computerized files and 2 solely paper records. Thus, paper still maintains a predominant place in this type of structure.

No structure has established routine screening for COVID-19 at delivery.

Four birth centers have access to a psychologist, 2 to a psychiatrist, and 2 to a child psychiatrist.

They also have recourse to specialized consultations with exterior experts: 4 in smoking cessation, 3 in alcohol problems, 2 in addiction medicine, and 4 in nutrition.

No birth center reported access to a social worker.

Two centers systematically inform women about the role of the local PMI program and how to contact it.

IV-7-3 Organization of the birthing room

Five birth centers systematically suggest that the women they follow write a birth plan; one often suggests it (Table 102).

All of the birth centers reported they had physiological spaces, with from 2 to 4 birthing rooms available.

All had at least one bathtub and allowed water births.

IV-7-4 Breastfeeding

Four birth centers reported they inform women about the possibility of milk donations (Table 102).

Five reported they had breastfeeding consultants available. Four reported that the consultant had specific training in breastfeeding, supervised breastfeeding, and led team meetings to try to harmonize practices. Three birth centers reported that the women could contact the consultant after discharge, that is, the end of the global follow-up, approximately 12 days post partum for birth centers.

IV-7-5 Screening

Five birth centers had a protocol for screening for neonatal deafness but only 3 had developed a catch-up protocol if the initial examination was not performed (Table 102).

The neonatal blood screening test was systematically performed at the woman's home by a midwife from the birth center as part of the global follow-up.

Only 2 birth centers reported giving women liaison forms.

PART V – THE OVERSEAS DISTRICTS AND REGIONS

Tables 103–109 present a summary of the results of the maternity ward survey (the ENP week and the extensions in the overseas districts and Saint-Martin (an overseas territorial unit) among the live births. The data for French Guyana are limited to the national ENP week.

The extensions in the overseas districts and regions were performed under the supervision of Santé publique France. The inclusion protocol and all of the results will be described in the specific reports of the extended survey period, which will also include the various particular pregnancy outcomes (termination of pregnancy, fetal death, and anonymous delivery for adoption). In French Guyana, mediators in the establishments were asked to interpret the interviews. In Mayotte, systematic use of investigator-interpreter pairs aimed to enhance inclusion. The 2-month postpartum follow-up was not offered there because of the difficulties in contacting women so long after the birth. Moreover, the Birth and 2-month questionnaire (solely with an investigator by telephone) were available in English and Spanish for Saint-Martin.

V-1 Establishments

Table 103 presents the establishments' characteristics.

There are 4 establishments in Guadeloupe — one level I, one level IIB, and 2 level III units — along with one birth center. No maternity unit has 2000 or more deliveries per year.

Saint-Martin has one level IIB hospital center with fewer than 1000 deliveries.

Martinique has 3 maternity units: 2 university or regional hospital centers and one private clinic; 2 are level I units and one level III; the former have fewer than 1000 deliveries yearly and the level III from 2000 to 3499.

French Guyana has no university maternity unit. Parturients are received by 3 public hospital centers and one private establishment, representing every level of care. Two maternity units have fewer than 1000 deliveries yearly and 2 more than 2000.

Réunion is the district with the most obstetric facilities: 7 maternity units and one birth center. They represent all levels of care and every size category of maternity ward.

Mayotte has only one establishment, a level IIB maternity unit with 3500 deliveries or more each year. Four supplementary centers are attached to it.

V-2 Participation

In Guadeloupe, 678 women (690 births) were included during the 9-week field survey. Among the 672 women who gave birth to a liveborn child, 83% had a complete questionnaire, that is, interview and medical file data. More than 75% of the women agreed to be recontacted at 2 months and approximately 54% of the women eligible at birth responded to the 2-month questionnaire (Table 104).

At Saint-Martin, 92 women (93 births) were included during the 9-week field survey. Among the 91 women with a liveborn child, 72 (70%) had a complete questionnaire. All these women agreed to participate in the follow-up at 2 months and 45 did so (49.5% of the eligible women).

In Martinique, 825 women (834 births) were included during the 14-week field survey. Among 811 women who gave birth to a liveborn child, 710 (more than 87%) had a complete questionnaire. Nearly 80% of the eligible women agreed to be contacted for the follow-up at 2 months and 53% responded.

In French Guyana, 130 women (133 infants) gave birth from March 14 to 21, 2021. Among the 128 women who gave birth to a liveborn child, 93 (around 72%) had a complete questionnaire. Data are available for all the live births. Around 63% of the eligible women agreed to be recontacted for the 2-month follow-up. Finally, only 30.5% of the women eligible at birth responded to the follow-up questionnaire.

In Réunion, 1115 women (1130 births) were included during the 4-week field survey. Among the 1105 women who with live births, 85% had a complete questionnaire. Of the eligible women, 76.6% agreed to be contacted for the follow-up and almost 52% responded to the questionnaire.

In Mayotte, 1000 women (1009 births) were included during the 6-week field survey. Among the 982 women with live births, 92.5% had a complete questionnaire.

All districts combined, the principal reason for the absence of an interview was refusal.

V-3 Guadeloupe

The results presented here summarize Table 104.

V-3-1 Women's characteristics

The mean maternal age of the women included in Guadeloupe is similar to that of the women included in metropolitan France (31.4 years versus 30.9 years).

The percentage of women with an education level of at least one year of postsecondary studies was lower in Guadeloupe (45.6% versus 59.4%), while the proportion of women reporting a monthly net income less than €1000 was 4 times higher there (33.5% versus 7.5%).

V-3-2 Prenatal care and childbirth

The professional principally responsible for prenatal care in Guadeloupe was an obstetrician-gynecologist (50.9% versus 51.5%), and the proportion of midwives providing prenatal care was lower (27.8%) than in metropolitan France (39.0%).

The early prenatal interview took place as often in both places (37.9%). On the other hand, community midwives conducted more than 70.3% of EPPs in Guadeloupe compared with 58.2% in metropolitan France.

The medical practices at delivery were similar in both places, with Guadeloupe's induction rate 24.0% and its cesarean rate 17.3%. The number of women with episiotomies in Guadeloupe was too low to be able to present an episiotomy rate.

Its preterm birth rate was 10.2% versus 7.0% in metropolitan France.

Around 53% of women breastfed exclusively, similar to the rate in metropolitan France.

V-4 Saint-Martin

The results presented here summarize Table 105.

V-4-1 Women's characteristics

The mean age of the women included in Saint-Martin was similar to that of women in metropolitan France (30.3 years versus 30.9 years), as was the rate of women with an education level of at least one year of postsecondary studies (50.0% versus 59.4%).

Monthly income was significantly different in Saint-Martin than in metropolitan France, with respective percentages of women reporting a monthly net income less than €1000 of 30.4% versus 7.5%.

V-4-2 Prenatal care and childbirth

As in metropolitan France, the principal professional providing prenatal care was an obstetrician-gynecologist (46.5%).

The induction rate in Saint-Martin was 22.0% versus 25.8% in metropolitan France, and the cesarean rate 30.1% versus 21.4%.

The maternal breastfeeding rates were similar in both places, with 61.0% of the women at Saint-Martin practicing exclusive breastfeeding.

The numbers of participants with an early prenatal interview, episiotomy, and preterm birth were too low to present the relevant data.

V-5 Martinique

The results presented here summarize Table 106.

V-5-1 Women's characteristics

The mean maternal age of the women included in Martinique was similar to that of the women included in metropolitan France (31.0 years versus 30.9 years).

The rate of women with an education level of at least one year of postsecondary studies was also similar in both places: 53.9% versus 59.4%.

The proportion of women reporting a monthly net income less than €1000 was significantly higher in Martinique than in metropolitan France (25.1% versus 7.5%).

V-5-2 Prenatal care and childbirth

The 2 groups of professionals principally responsible for prenatal care divided this follow-up almost equally in Martinique: obstetrician-gynecologists (43.3%) and midwives (42.1%), contrary to metropolitan France where the obstetrician-gynecologist remained the principal professional involved (51.5%).

The early prenatal interview took place equally often in both locations (36.4%). On the other hand, community midwives and/or PMI midwives and obstetrician-gynecologists were both more involved in this interview in Martinique than in metropolitan France (almost 80% versus 66.1%).

The women included in Martinique had labor induced as often (29.7% versus 25.8%) and had as many cesareans (19.0% versus 21.4%) and episiotomies (5.5% versus 8.3%).

The preterm birth rate was 8.6% in Martinique, similar to the 7.0% rate in metropolitan France.

The rate of women exclusively breastfeeding was 76.6%, 20% more than in metropolitan France. This difference is significant.

V-6 French Guyana

The study in French Guyana was not extended.

The results presented here summarize Table 107.

V-6-1 Women's characteristics

The women included in French Guyana were somewhat younger than those in metropolitan France: their mean ages were respectively 28 years and almost 31 years.

The percentage of women with an education level of at least one year of postsecondary studies was 17.2% versus 59.4% in metropolitan France.

Nearly half the women reported a monthly net income less than €1000.

V-6-2 Prenatal care and childbirth

The professional principally responsible for prenatal care was a midwife (53.9% versus 39.0% in metropolitan France).

The early prenatal interview was not often performed: only 16.1% of women reported having it, compared with 36.5% of women in metropolitan France.

The rates of induction of labor (27.3%) and cesarean delivery (22.9%) were similar to those in metropolitan France.

The preterm birth rate was twice as high in French Guyana — 16% of births — as in metropolitan France. Nonetheless, although this difference was significant, in view of the small number of births concerned, this percentage must be interpreted carefully and may require complementary investigations.

Exclusive breastfeeding was reported by 53.8% of women, similar to the rate in metropolitan France.

The number of individuals is insufficient to present data about episiotomy and about the professionals who conducted the early prenatal interview.

V-7 Réunion

The results presented here summarize Table 108.

V-7-1 Women's characteristics

The women included in Réunion were slightly younger than those in metropolitan France, with a mean age of 29.7 years compared with almost 31 years.

Substantially fewer women in Réunion than in metropolitan France had an education level of at least one year of postsecondary studies (39.5% vs. 59.4%), and 25% and 7.5% respectively reported a monthly net income less than €1000.

V-7-2 Prenatal care and childbirth

The professional principally responsible for prenatal care was the obstetrician-gynecologist (61.8%), 10 percentage points more than in metropolitan France.

The early prenatal interview was performed more frequently in Réunion (around half the women reported having it, compared with 36.5%). Community midwives performed most of these interviews (79.1%).

The women in Réunion had labor induced less often than in metropolitan France (20.9% versus 25.8%), had as many cesareans (21.5% versus 21.4%) and slightly more than half as many episiotomies (4.7% versus 8.3%).

The preterm birth rate, at 8.7%, was similar to that in metropolitan France, as was the exclusive breastfeeding rate (57.7%).

V-8 Mayotte

The results presented here summarize Table 109.

V-8-1 Women's characteristics

The women included in Mayotte were younger and less educated than those in metropolitan France; their respective mean ages were 28.2 years compared with almost 31 years, and their rates of at least one year of postsecondary studies were respectively 13.7% and almost 60%.

Sixty percent of women had a monthly net income less than €1000 compared with 7.5% in metropolitan France.

V-8-2 Prenatal care and childbirth

In Mayotte, the principal participants in prenatal care were specialists from the PMI program, included in the "other situation" category in the table. Very few obstetrician-gynecologists provided women with prenatal care (1.2%).

The early prenatal interview was rarely performed: only 1.8% of women reported having it.

Medical procedures were performed significantly less often in Mayotte than in metropolitan France: 11.0% of women had labor induced, 13.6% a cesarean, and 1.7% an episiotomy.

The preterm birth rate was higher in Mayotte than in metropolitan France, affecting nearly 10% of births.

The rate of women exclusively breastfeeding in Mayotte was 80.5%, 25% more than in metropolitan France.

PART VI – TABLES

Table 1: Sample size

	Metropolitan France	French ultramarine territories [1]	France
Districts	96	5	101
Maternity units [2]	453	19	472
Birth center	6	2	8
Women	12 723	681	13 404
Births	12 939	692	13 631
Singletons	12 510	670	13 180
Twins	420	22	442
Triplets	9	0	9
Babies	12 939	692	13 631
Live births	12 828	686	13 514
Stillbirths	63	5	68
Termination of pregnancy	48	1	49

(1) French Guyana, Martinique, Guadeloupe, Saint-Martin, Mayotte, Réunion

(2) Not included 3 maternities, in metropolitan France, refused to participate : 80 births

Figure 1: Flow chart in metropolitan France

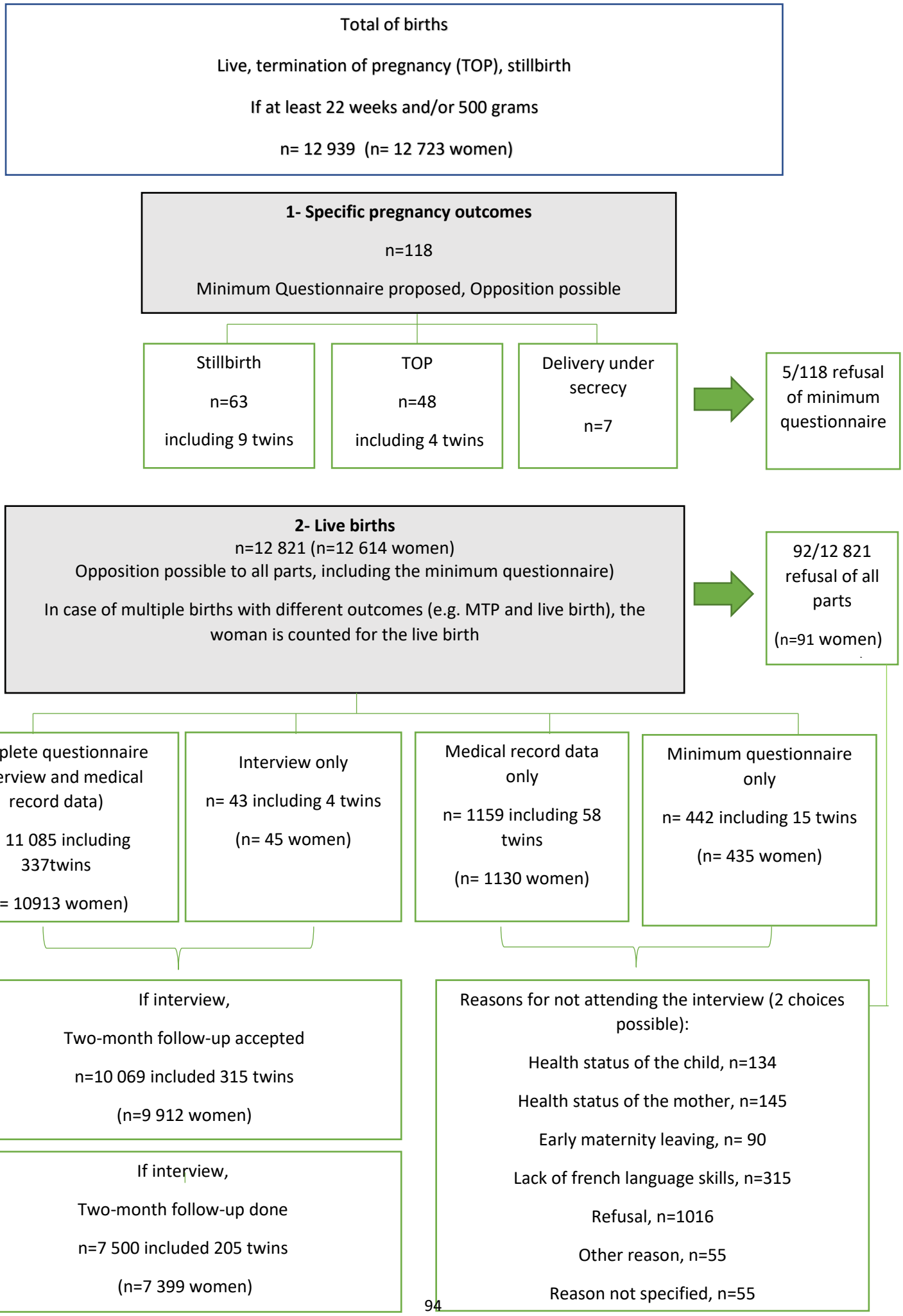


Table 2: Comparison of parental social and demographic characteristics in the national perinatal survey (ENP) and the PMSI[1] statistics

	PMSI				ENP2021 [3]		
	Week ENP [2]		Year 2021				
	n	%	n	%	n	%	95% CI
Women	12 703		693 154		12 617		
Births	12 915 [4]		704 382 [4]		12 832		
Status of the maternity unit [5]							
Public or ESPIC	9 973	78,5	544 464	78,5	9 905	78,5	77,8 - 79,2
Private	2 730	21,5	148 639	21,4	2 712	21,5	20,8 - 22,2
Other			51				
Maternal age [5]							
< 15 years	-		101		-		
15-19	163	1,3	9 972	1,4	167	1,3	1,1 - 1,5
20-24	1 343	10,6	72 962	10,5	1 306	10,4	9,8 - 10,9
25-29	3 628	28,6	193 802	28,0	3 569	28,3	27,5 - 29,1
30-34	4 458	35,1	247 020	35,6	4 463	35,4	34,6 - 36,2
35-39	2 418	19,0	134 468	19,4	2 421	19,2	18,5 - 19,9
≥ 40	693	5,5	34 829	5,0	684	5,4	5,0 - 5,8
Gestational age [5]							
22-31 weeks	201	1,6	10 311	1,5	207	1,7	1,4 - 1,9
32-36	625	4,9	35 451	5,1	672	5,3	5,0 - 5,7
37-44	11 877	93,5	647 392	93,4	11 689	93,0	92,5 - 93,4
Birth weight [6]							
< 1500 grams	153	1,2	7 289	1,0	147	1,2	1,0 - 1,4
1500-1999	173	1,4	9 566	1,4	175	1,4	1,2 - 1,6
2000-2499	573	4,5	32 385	4,6	575	4,6	4,2 - 5,0
2500-2999	2 447	19,3	132 797	19,0	2 420	19,3	18,7 - 20,0
3000-3499	5 056	39,8	282 199	40,4	4 922	39,4	38,5 - 40,2
3500-3999	3 479	27,4	187 225	26,8	3 379	27,0	26,2 - 27,8
≥ 4000	900	7,1	47 369	6,8	888	7,1	6,7 - 7,6
Multiples [5]	210	1,7	11 044	1,6	212	1,7	1,5 - 1,9
Mortinatality [5]	98	0,8	5 865	0,8	98	0,8	0,6 - 0,9
Termination of pregnancy	45	0,4	2 405	0,3	43	0,3	0,2 - 0,5
Stillbirth	53	0,4	3 460	0,5	55	0,4	0,3 - 0,6
Cesarean [7]	2 631	20,9	144 184	20,9	2 628	21,0	20,3 - 21,7
Type of birth [8]							
Live singleton	12 401	96,0	676 696	96,1	12 311	95,9	95,6 - 96,3
Singleton stillbirth	92	0,7	5 414	0,8	94	0,7	0,6 - 0,9
Live twins	408	3,2	21 162	3,0	404	3,1	2,8 - 3,5
Twins stillbirth	8	0,1	560	0,1	14	0,1	0,06 - 0,2
Live triplets	6		510	0,1	9		
Stillbirth triplets	0		40		0		

(1) Medical Information System Program
(2) After excluson of 3 non-participant maternities in the ENP study and women under the age of 15
(3) Not included 91 women in the 3 non-particpant maternities and 10 women in birth centers
(4) Denominator : estimated births during the hospitalisation of the mother
(5) Denominator : number of women
(6) Denominator : number of livebirths (in PMSI)
(7) Denominator : number of women with livebirths
(8) Denominator : number of births

Table 3: Demographic characteristics
(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % CI
Age (years) [1,2]					
15-17	-	<,0001	22	0,2	0,1 - 0,3
18-19	1,5		129	1,1	0,9 - 1,3
20-24	11,9		1 242	10,3	9,7 - 10,8
25-29	31,5		3 408	28,2	27,4 - 29,0
30-34	34,0		4 312	35,7	34,8 - 36,6
35-39	17,2		2 314	19,1	18,5 - 19,9
≥ 40	3,9		655	5,4	5,0 - 5,8
	(12 547)		(12 082)		
Mean ± standard deviation [1]	30,4 ±5,2			30,9 ±5,3	
Marital Status [1,3]					
Maried	40,6	<,0001	4 145	38,2	37,3 - 39,1
Civil union (PACS)	18,1		2 422	22,3	21,6 - 23,1
Single	41,2		4 278	39,5	38,5 - 40,4
	(11 716)		(10 845)		
Living with partner [1,3]					
Yes, in the same home	91,6	0,1846	10 084	92,1	91,6 - 92,6
Yes, different home	3,2		304	2,8	2,5 - 3,1
No	5,2		561	5,1	4,7 - 5,6
	(11 739)		(10 949)		
Gender of partner [1,3]					
Man	-		9 705	99,5	99,4 - 99,7
Woman	-		44	0,5	0,3 - 0,6
			(9 749)		
Residence at the end of pregnancy [1]					
Own lodging	93,9	<,0001	10 251	93,7	93,3 - 94,2
Parents, family, friends'	5,2		497	4,6	4,2 - 5,0
Social care home, hotel	0,8		164	1,5	1,3 - 1,8
Other	0,1		23	0,2	0,1 - 0,3
	(11 745)		(10 935)		

(1) Denominator: number of women
(2) Minor women not included in 2016
(3) Partner characteristics presented in Table 66

Table 4: Educational level and geographic origin

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Nationality [1]					
French	85,9	0,0003	9 211	84,2	83,4 - 84,8
Other european countries	3,5		407	3,7	3,4 - 4,1
North Africa	5,0		595	5,4	5 - 5,9
Other African countries	3,5		496	4,5	4,2 - 4,9
Other nationalities	2,1		240	2,2	1,9 - 2,5
	(11 737)		(10 949)		
Maternal country of birth [1]					
France	81,4	<,0001	8 585	79,0	78,3 - 79,8
Other european countries	3,9		440	4,1	3,7 - 4,4
North Africa	7,0		807	7,4	6,9 - 7,9
Other african countries	4,7		675	6,2	5,8 - 6,7
Other nationalities	3,0		354	3,3	2,9 - 3,6
	(11 763)		(10 861)		
Time between arrival in France and delivery [1,2]					
≤ 1year	11,5	<,0001	130	6,1	5,1 - 7,2
2 - 5 years	28,1		678	31,7	29,8 - 33,8
6 - 9 years	19,0		463	21,7	20 - 23,5
≥ 10 years	41,4		865	40,5	38,4 - 42,6
	(2 004)		(2 136)		
Education level [1]					
None or primary school	1,6	<,0001	182	1,7	1,4 - 1,9
Middle school (Years 6-9)	6,2		574	5,3	4,8 - 5,7
Vocational education, short	15,1		1 313	12,0	11,4 - 12,6
High school, academic studies	8,7		943	8,6	8,1 - 9,2
High school, vocational studies	2,9		256	2,3	2,1 - 2,6
High school, technical studies	10,1		1 171	10,7	10,1 - 11,3
Completed high school + 1 or 2 years	19,3		2 023	18,5	17,8 - 19,2
Completed high school + 3 or 4 years	18,2		2 035	18,6	17,9 - 19,3
Completed high school + 5 years or more	17,9		2 443	22,3	21,6 - 23,1
	(11 663)		(10 940)		

(1) Denominator: number of women

(2) For the women born abroad and living in France, interval calculated from the response to the following question: "What year did you arrive in France?"

Table 5: Women's employment

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Mother's occupation (1,2,3)					
Farmers	0,3	<,0001	38	0,4	0,3 - 0,5
Artisan, small business owner	3,1		359	3,4	3,0 - 3,7
Professional, manager, engineer	10,3		1 896	17,8	17,1 - 18,6
Intermediate	32,9		2 785	26,2	25,3 - 27,0
Employee	39,4		3 814	35,8	34,9 - 36,7
Manuel worker	6,2		658	6,2	5,7 - 6,7
No occupation	7,7		1 097	10,3	9,7 - 10,9
	(11 318)		(10 647)		
Occupational status at the end of pregnancy (1,4)					
Employed	68,1	<,0001	7 293	67,9	67,0 - 68,8
Unemployed	16,8		1 392	13,0	12,3 - 13,6
Student	2,1		144	1,3	1,1 - 1,6
Housewife	12,1		1 542	14,4	13,7 - 15,0
Other situations	0,9		368	3,4	3,1 - 3,8
	(11 499)		(10 739)		
Worked during pregnancy (1)					
Yes	70,8	0,0945	7 636	69,8	68,9 - 70,7
No	29,2		3 305	30,2	29,4 - 31,1
	(11 736)		(10 941)		
Working time (1)					
Full time	78,5	<,0001	5 200	82,7	81,7 - 83,6
Part time from 80 to 99%			630	10,0	9,3 - 10,8
Part time from 50 to 79%	21,5		341	5,4	4,9 - 6,0
Part time less than 50%			118	1,9	1,6 - 2,2
	(8 133)		(6 289)		
Gestationnal age at last day worked (1)					
< 14 weeks	9,0	<,0001	790	10,5	9,8 - 11,2
15-22	15,8		1 495	19,8	19,0 - 20,8
23-28	23,3		1 679	22,3	21,4 - 23,3
29-32	22,7		1 385	18,4	17,5 - 19,3
≥ 33	29,2		2 182	29,0	28,0 - 30,0
	(7 721)		(7 531)		

(1) Denominator: number of women

(2) Automated coding of occupation by SICORE (INSEE) software

(3) This is the current or last occupation

(4) Employed: includes work stoppage, sick leave, partial unemployment due to the health crisis;
Other status: includes parental leave, unpaid leave

Table 6: Household financial situation (part 1)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Household income to professional activity [1]					
Yes	91,1	<,0001	9 779	89,5	88,9 - 90,1
No	8,9		1 144	10,5	9,9 - 11,1
	(11 709)		(10 923)		
Household ressources [1,2]					
Unemployed allocations	15,1	<,0001	1 787	16,4	15,7 - 17,1
Active solidarity income (RSA)	9,9		751	6,9	6,4 - 7,4
Other financial assistance	2,6		309	2,8	2,5 - 3,2
Income from work	71,8		7 935	72,6	71,8 - 73,5
None	0,6		144	1,3	1,1 - 1,6
	(11 733)		(10 926)		
Household income level per month [1,3]					
less than 500 euros	2,0	<,0001	197	1,9	1,6 - 2,2
500-999	7,5		577	5,6	5,1 - 6
1000-1499	8,6		814	7,8	7,3 - 8,4
1500-1999	12,7		989	9,5	9,0 - 10,1
2000-2999	27,7		2 434	23,5	22,6 - 24,3
3000-3999	23,4		2 817	27,1	26,3 - 28
4000-5999			1 926	18,6	17,8 - 19,3
6000-7999	18,1		440	4,2	3,9 - 4,6
8000 and more			185	1,8	1,5 - 2,1
	(11 558)		(10 379)		
Health coverage at beginning of pregnancy [1]					
Mandatory health insurance (PUMa)	97,5	<,0001	10 521	96,3	95,9 - 96,6
AME (health insurance for undocumented individuals)	1,1		181	1,7	1,4 - 1,9
Other coverage	-		114	1,0	0,9 - 1,3
None	1,4		110	1,0	0,8 - 1,2
	(11 744)		(10 926)		
Supplementary health insurance [1]					
Mutual (cooperative) insurance company, private insurance	82,1	<,0001	8 910	81,6	80,9 - 82,4
Supplementary CCS (health insurance for very low-income individuals)	9,2		1 237	11,3	10,7 - 11,9
None	8,7		768	7,1	6,6 - 7,5
	(11 672)		(10 915)		

(1) Denominator: number of women

(2) If there are several sources of income, they are selected in the order presented here

(3) In 2021, income after withholding tax; in 2016, no withholding tax

Table 7: Household financial situation (part 2)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Financial well-being (1)					
Cannot get by without going into debt	-		248	2,3	2,0 - 2,6
It's difficult to get by	-		797	7,3	6,9 - 7,8
It's just about making it	-		3 460	31,8	31,0 - 32,7
It's ok	-		3 640	33,5	32,6 - 34,4
Quite comfortable	-		2 181	20,1	19,3 - 20,8
Very comfortable	-		541	5,0	4,6 - 5,4
			(10 867)		
Any medical visits or examinations not done for financial reasons (1)					
Yes	-		310	2,8	2,5 - 3,2
No	-		10 619	97,2	96,8 - 97,5
			(10 929)		
Deprivation index (1,2)					
0 (not disadvantaged)	78,5	<,0001	9 264	84,5	83,9 - 85,2
1	10,5		1 130	10,3	9,8 - 10,9
2	7,2		424	3,9	3,5 - 4,3
3 (very disadvantaged)	3,8		138	1,3	1,1 - 1,5
	(11 763)		(10 956)		

(1) Denominator: number of women

(2) Combine the following variables: "no partner", "active solidarity income/low-income bonus", "insured by CMU (for very low-income individuals), AME (for undocumented individuals) or uninsured", and "no personal housing"; Index of 0 = Not disadvantaged to 3 = very disadvantaged.

Table 8: Birth control and fertility treatment

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Last contraceptive method used [1,2]					
None	8,3	<0,0001	1 290	11,8	11,2 - 12,4
Pill	62,9		5 750	52,6	51,7 - 53,6
Intra-uterine device	9,5		1 529	14,0	13,4 - 14,7
Implant, patch, vaginal ring	4,9		557	5,1	4,7 - 5,5
Condom	11,1		1 338	12,3	11,6 - 12,9
Withdrawal	1,9		308	2,8	2,5 - 3,2
Periodic abstinence	1,1		125	1,1	1,0 - 1,4
Other method	0,3		30	0,3	0,2 - 0,4
	(11 730)		(10 927)		
Reasons for stopping contraceptive use [1,2,3,4]					
Desire to have a child	78,1	<0,0001	6 784	70,9	70,0 - 71,8
Became pregnant (while using contraception)	9,3		871	9,1	8,5 - 9,7
Stop before previous pregnancy			352	3,7	3,3 - 4,1
Method did not suit	12,6		1 321	13,8	13,1 - 14,5
Other reason [5]			239	2,5	2,2 - 2,8
	(10 403)		(9 567)		
Fertility treatment [1]					
None	93,1	0,0001	10 120	93,3	92,9 - 71,8
In vitro fertilization	3,2		344	3,2	2,9 - 9,7
Oocyte donation	0,1		38	0,4	0,3 - 4,1
Intre-uterine insemination	1,0		122	1,1	0,9 - 14,5
Ovulation inducing drugs	2,6		218	2,0	1,8 - 2,8
	(11 703)		(10 842)		
Pre-conception consultation for this pregnancy [1]					
Yes	35,3	<0,0001	4 145	37,9	37,0 - 38,8
No	64,7		6 788	62,1	61,2 - 63,0
	(11 687)		(10 933)		

(1) Denominator: number of women

(2) If several methods are reported, they are selected in the order presented here.

(3) Denominator: number of women who have ever used contraception

(4) Different wording of the question (more modalities in 2021)

(5) Other = medical contraindication, poor tolerance, poor compliance

Table 9: Psychological context during pregnancy

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Reaction to the discovery of the pregnancy [1]					
Happy to be pregnant now	72,5	0,1401	7 788	71,4	70,5 - 72,2
Pregnancy desired earlier	11,8		1 312	12,0	11,4 - 12,7
Pregnancy desired later	12,2		1 374	12,6	12,0 - 13,2
Would have preferred not to be pregnant	3,5		436	4,0	3,6 - 4,4
	(11 721)		(10 910)		
Psychological status during pregnancy [1]					
Good	67,7	<,0001	6 904	63,2	62,3 - 64,1
Fairly good	22,2		2 668	24,5	23,6 - 25,3
Fairly bad	7,3		975	8,9	8,4 - 9,5
Bad	2,8		372	3,4	3,1 - 3,8
	(11 716)		(10 919)		
Experience of the pregnancy					
At least 2 consecutive weeks,					
Feeling sad, depressed, hopeless [1]					
Yes	23,6	0,0004	2 799	25,6	24,8 - 26,5
No	76,4		8 115	74,4	73,5 - 75,2
	(11 589)		(10 914)		
Loss of interest in most thing, such as leisure activities [1]					
Yes	18,2	0,0698	2 083	19,1	18,4 - 19,9
No	81,8		8 818	80,9	80,1 - 81,6
	(11 560)		(10 901)		
Consulted a professional for psychological difficulties [1,2]					
No	93,6	<,0001	9 927	91,1	90,5 - 91,6
Yes, psychiatrist	1,2		159	1,5	1,2 - 1,7
Yes general pratictionner	-		80	0,7	0,6 - 0,9
Yes, another doctor	0,5		20	0,2	0,1 - 0,3
Yes, psychologist or psychotherapist	4,4		634	5,8	5,4 - 6,3
Yes, another professionnal	0,3		80	0,7	0,6 - 0,9
	(11 704)		(10 900)		

(1) Denominator: number of women

(2) When several professionals were reported, they were selected in the order presented here

Table 10: Weight and height

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Height [1]					
< 150 cm	0,5	0,2330	57	0,5	0,4 - 0,7
150-159	18,4		2 023	18,6	17,9 - 19,4
160-169	57,9		6 261	57,7	56,7 - 58,6
170-179	22,2		2 372	21,8	21,1 - 22,6
≥ 180	1,0		148	1,4	1,2 - 1,6
	(11 661)		(10 861)		
Weight before pregnancy [1]					
< 40 kg	0,2	<,0001	18	0,2	0,1 - 0,3
40-49	8,1		690	6,4	5,9 - 6,9
50-59	32,5		3 135	29,0	28,1 - 29,8
60-69	29,4		3 231	29,8	29,0 - 30,7
70-79	15,6		1 824	16,8	16,2 - 17,6
≥ 80	14,2		1 928	17,8	17,1 - 18,5
	(11 663)		(10 826)		
BMI before pregnancy [1]					
< 18,5	7,4	<,0001	627	5,8	5,4 - 6,3
18,5-24,9	60,8		6 117	56,7	55,8 - 57,7
25-29,9	20,0		2 481	23,0	22,2 - 23,8
30 -34,9	8,1		1 013	9,4	8,9 - 10,0
≥ 35	3,7		542	5,0	4,6 - 5,5
	(11 591)		(10 780)		
Weight gain during pregnancy [1]					
< 5 kg	6,1	<,0001	831	7,7	7,2 - 8,3
5 - 9	17,9		2 000	18,6	17,9 - 19,4
10 - 12	24,5		2 580	24,0	23,2 - 24,8
13 - 15	23,5		2 390	22,2	21,4 - 23,0
16 - 19	16,7		1 746	16,3	15,5 - 17,0
≥ 20	11,3		1 206	11,2	10,6 - 11,8
	(11 591)		(10 753)		
Mean ± standard deviation	12,8 ±5,8		12,5 ±6,2		

(1) Denominator: number of women

Table 11: Tobacco and cannabis use

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Number of cigarettes per day one year before the pregnancy [1,2]					
0	-		7 948	72,9	72,1 - 73,8
1 - 9	-		1 263	11,6	11,0 - 12,2
≥ 10	-		1 688	15,5	14,8 - 16,2
			(10 899)		
Number of cigarettes per day at discovery of this pregnancy [1]					
0	-		8 691	79,6	78,8 - 80,4
1 - 9	-		1 166	10,7	10,1 - 11,3
≥ 10	-		1 061	9,7	9,2 - 10,3
	-		(10 918)		
Number of cigarettes per day in the third trimester of pregnancy [1]					
0	83,7	<,0001	9 591	87,8	87,2 - 88,4
1 - 9	12,3		1 004	9,2	8,7 - 9,8
≥ 10	4,0		327	3,0	2,7 - 3,3
	(11 722)		(10 922)		
Consumption of cannabis one year before pregnancy [1]					
Yes	-		658	6,0	5,6 - 6,5
No	-		10 220	94,0	93,5 - 94,4
			(10 878)		
If yes, frequency of cannabis intake during pregnancy [1]					
Less than once a month	-		317	50,7	46,7 - 54,7
Once or twice a month	-		82	13,1	10,6 - 16,0
3 to 5 times/month	-		54	8,7	6,6 - 11,1
6 to 9 times/month	-		20	3,2	2,0 - 4,9
At least 10 times/month	-		152	24,3	21,0 - 27,9
			(625)		
Consumption of cannabis during pregnancy [1]					
Yes	2,1	<,0001	115	1,1	0,9 - 1,3
No	97,9		10 718	98,9	98,7 - 99,1
	(11 570)		(10 833)		
If yes, frequency of cannabis intake during pregnancy [1]					
Less than once a month	42,1	0,0227	34	30,3	22,0 - 39,8
Once or twice a month	14,6		14	12,5	7,0 - 20,1
3 to 5 times/month	19,5		18	16,1	9,8 - 24,2
At least 6 times/month	23,8		46	41,1	31,9 - 50,8
	(164)		(112)		

(1) Denominator: number of women

Table 12: Consumption of alcohol

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
One year before pregnancy					
Consumption of alcohol (1,2)					
Never	42,5	<,0001	4 312	39,5	38,6 - 40,4
Less than once a month	24,2		2 456	22,5	21,7 - 23,3
2 to 4 times a month	25,2		3 039	27,8	27,0 - 28,7
2 to 3 times a week	6,5		913	8,3	7,9 - 8,9
At least 4 times a week	1,2		138	1,3	1,1 - 1,5
Everyday	0,3		66	0,6	0,5 - 0,8
	(11 614)		(10 924)		
If yes, number of glasses per week (1,2)					
Lass than one	-		1 864	28,7	27,6 - 29,8
1 to 4	-		4 119	63,5	62,3 - 64,7
5 to 10	-		435	6,7	6,1 - 7,3
11 to 13	-		48	0,7	0,6 - 1,0
14 or more	-		23	0,4	0,2 - 0,5
			(6 489)		
Since the discovery of the pregnancy					
Consumption of alcohol (1,3)					
Never	93,1	-	10 575	96,9	96,6 - 97,2
Less than once a month	6,0		283	2,6	2,3 - 2,9
2 to 4 times a month	0,8		36	0,3	0,2 - 0,5
At least once a week	0,1		20	0,2	0,1 - 0,3
	(11 352)		(10 914)		
Number of glasses per week if drinking alcohol (1,3)					
Less than one glasse	84,3	-	269	81,3	76,6 - 85,3
At least one glasse	15,7		62	18,7	14,7 - 23,4
	(762)		(331)		
At least 3 glasses in same occasion (1,3)					
Never	85,8	-	286	87,5	83,4 - 90,9
At least once during pregnancy	14,2		41	12,5	9,2 - 16,6
	(765)		(327)		

(1) Denominator: number of women

(2) Different question wording (for 2016 questions asked about the period "before your pregnancy")

(3) Different question wording (for 2016 questions asked about the "during your pregnancy" period)

Table 13: Attention paid to smoking and alcohol use by professionals during antenatal care

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Question asked about smoking [1]					
Yes	79,8	<,0001	10 044	91,9	91,4 - 92,5
No	20,2		674	6,2	5,7 - 6,6
Does not know	-		205	1,9	1,6 - 2,2
	(11 733)		(10 923)		
if yes, recommendations by provider care [1,2]					
None, no smoker	69,6	-	6 943	77,5	76,6 - 78,3
No advice	16,3		395	4,4	4,0 - 4,9
Advice to stop	14,1		645	7,2	6,7 - 7,8
Advice to decrease consumption	-		656	7,3	6,8 - 7,9
Possibility to smoke sometimes	-		257	2,9	2,5 - 3,2
Does not know	-		66	0,7	0,6 - 0,9
	(10 286)		(8 962)		
Question asked about drinking alcohol [1]					
Yes	67,1	<,0001	8 067	73,9	73,1 - 74,7
No	32,9		2 469	22,6	21,8 - 23,4
Does not know	-		378	3,5	3,1 - 3,8
	(11 726)		(10 914)		
Recommendations by provider care [1,2]					
No advice	70,7	-	4 448	42,7	41,7 - 43,6
Advice to never drink	29,3		2 278	21,9	21,1 - 22,7
Advice to decrease consumption	-		13	0,1	0,1 - 0,2
Possibility to drink sometimes	-		70	0,7	0,5 - 0,9
Never drink	-		3 372	32,3	31,5 - 33,3
Does not know	-		242	2,3	2,0 - 2,6
	(11 597)		(10 423)		

(1) Denominator: number of women

(2) Different wording of the questions

Table 14: Support and accompaniment during pregnancy (part 1)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Relatives support during pregnancy (1)					
Very well supported	-		6 857	62,8	61,9 - 63,7
Well supported	-		3 087	28,3	27,4 - 29,1
Not very supported	-		736	6,7	6,3 - 7,2
Not supported	-		185	1,7	1,5 - 2,0
Does not wish to answer	-		56	0,5	0,4 - 0,7
			(10 921)		
Receipt of the pregnancy health notebook (1)					
Yes	56,4	<,0001	4 410	40,4	39,5 - 41,3
No	40,5		6 137	56,2	55,3 - 57,2
Does not know	3,1		370	3,4	3,1 - 3,8
	(11 725)		(10 917)		
If yes, how to get the notebook (1)					
Private doctor or midwife	21,8	<,0001	1 041	23,9	22,7 - 25,2
In maternity	27,7		1 769	40,7	39,2 - 42,1
Maternal and child protection (PMI) or insurance company	48,6		1 391	32,0	30,6 - 33,4
Does not know	1,9		149	3,4	2,9 - 4,0
	(6 450)		(4 350)		
Interview with a social worker during pregnancy (1)					
Yes	8,8	0,0709	892	8,2	7,7 - 8,7
No	91,2		10 038	91,8	91,3 - 92,4
	(11 743)		(10 930)		
Home visits by a midwife (1)					
Yes	18,4	0,7869	2 015	18,5	17,8 - 19,3
No	81,6		8 865	81,5	80,7 - 82,2
	(11 670)		(10 880)		

(1) Denominator: number of women

Table 15: Support and accompaniment during pregnancy (part 2)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Early prenatal interview (EPP) [1]					
Yes	28,5	<,0001	3 985	36,5	35,6 - 37,4
No	68,5		6 500	59,5	58,6 - 60,4
Does not know	3,0		440	4,0	3,7 - 4,4
	(11 738)		(10 925)		
If EPP, professional who conducted it [1]					
Midwife at the hospital	42,7	<,0001	1 330	33,5	32,1 - 35,1
Midwife in private practice	47,2		2 279	57,5	55,9 - 59
Maternal and Child Protection (PMI) midwife	6,3		189	4,8	4,1 - 5,5
Gynaecologist-Obstetrician	3,3		120	3,0	2,5 - 3,6
Other	0,5		46	1,2	0,9 - 1,5
	(3 210)		(3 964)		
If EPP, term at that time [1]					
1st - 3rd month (< 14 weeks)	17,8	0,0071	788	21,4	20,1 - 22,8
4th month	32,5		1 133	30,8	29,3 - 32,3
5th month	19,4		698	19,0	17,7 - 20,3
6th month	14,0		490	13,3	12,2 - 14,5
7th to 9th month	16,3		571	15,5	14,4 - 16,7
	(3 159)		(3 680)		
If EPP, referral to another professional afterwards [1]					
Yes	14,6	0,0578	514	13,1	12,0 - 14,2
No	85,4		3 420	86,9	85,8 - 88
	(3 243)		(3 934)		
Antenatal classes					
Nulliparas [1]					
Yes, with private pratictionner	77,9	0,0042	2 916	64,3	62,9 - 65,7
Yes, at the maternity			523	11,5	10,6 - 12,5
Yes, both			104	2,3	1,9 - 2,8
Other[2]			99	2,2	1,8 - 2,7
No	22,1		894	19,7	18,6 - 20,9
	(4 973)		(4 536)		
Paras [1]					
Yes, with private pratictionner	33,9	0,0765	1 838	29,1	28 - 30,2
Yes, at the maternity			261	4,1	3,7 - 4,7
Yes, both			60	1,0	0,7 - 1,2
Other[2]			72	1,1	0,9 - 1,4
No	66,1		4 084	64,7	63,5 - 65,9
	(6 735)		(6 315)		
Number of sessions [1]					
< 4	19,4	0,3360	1 170	20,1	19,1 - 21,2
4 - 6	37,2		2 145	36,9	35,7 - 38,1
7 - 8	38,9		2 210	38,0	36,8 - 39,3
≥ 9	4,5		290	5,0	4,4 - 5,6
	(6 123)		(5 815)		

(1) Denominator: number of women

(2) Midwives of different or unknown status

Table 16: Antenatal visits, professionals consulted during pregnancy

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Main care provider during the first 6 months (1,2)					
Gynaecologist-Obstetrician in private practice	49,7	<,0001	4 288	39,4	38,5 - 40,3
GO in public hospital or doctor in CPP	16,0		1 321	12,1	11,5 - 12,8
General practitioner	6,5		469	4,3	3,9 - 4,7
Midwife in private practice	8,5		2 494	22,9	22,1 - 23,7
Midwife in public hospital/CPP	14,8		1 755	16,1	15,4 - 16,8
Maternal and Child Protection (PMI)	2,3		202	1,9	1,6 - 2,1
Several of these professionals	2,2		356	3,3	2,9 3,6
	(11 648)		(10 885)		
At least one visit with the team managing the delivery (1)					
Yes	93,7	<,0001	10 331	94,9	94,5 - 95,3
No	6,3		554	5,1	4,7 - 5,5
	(11 713)		(10 885)		
Visit in emergency for pregnancy reason (1)					
Oui	-		5 482	50,1	49,2 - 51,1
Non	-		5 450	49,9	48,9 - 50,8
	-		(10 932)		
If yes, number of visits at the emergency room (1)					
0	-		284	5,2	4,7 - 5,9
1	-		2 732	50,3	48,9 - 51,6
2	-		1 295	23,8	22,7 - 25,0
3	-		603	11,1	10,3 - 12,0
≥ 4	-		522	9,6	8,8 - 10,4
	-		(5 436)		
If yes, number of visits in private practice (1)					
0	-		4 292	83,8	82,8 - 84,8
1	-		596	11,6	10,8 - 12,6
2	-		134	2,6	2,2 - 3,1
3	-		49	1,0	0,7 - 1,3
≥ 4	-		49	1,0	0,7 - 1,3
			(5 120)		

(1) Denominator: number of women

(2) GO : gynaecologist-obstetrician, CPP: Local perinatal center

Table 17: Screening and diagnostic tests during pregnancy

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Total number of ultrasound scans (1)					
< 3	1,0	<,0001	43	0,4	0,3 - 0,5
3	24,3		1 422	13,1	12,5 - 13,8
4 or 5	38,8		4 064	37,5	36,6 - 38,4
≥ 6	35,9		5 315	49,0	48,1 - 50,0
	(11 672)		(10 844)		
Mean ± standard deviation (1)	5,5 ±2,8			6,3 ± 3,1	
Measurement of nuchal translucency (1)					
Yes	87,0	<,0001	9 833	90,2	89,7 - 90,8
No	6,1		447	4,1	3,7 - 4,5
Does not know	6,9		616	5,7	5,2 - 6,1
	(11 721)		(10 896)		
Screening for Down syndrome (1,2)					
Yes	86,5	<,0001	9 927	90,9	90,3 - 91,4
No	11,0		815	7,5	7,0 - 8,0
Does not know	2,5		182	1,7	1,4 - 1,9
	(11 732)		(10 924)		
Screening made by (1)					
Serum markers	-		7 421	75,0	74,2 - 75,9
Non-invasive prenatal screening (NIPST)	-		271	2,8	2,4 - 3,1
The two exams	-		1 268	12,8	12,2 - 13,5
Does not know	-		931	9,4	8,8 - 10,0
			(9 891)		
If no screening, reasons (1)					
Not offered	-	-	49	6,9	5,2 - 9,1
Refused	-		464	65,6	62,0 - 69,1
Late initiation of care	-		105	14,9	12,3 - 17,7
Invasive diagnosis from the start	-		19	2,7	1,6 - 4,2
Other reason	-		38	5,4	3,8 - 7,3
Does not know	-		32	4,5	3,1 - 6,3
			(707)		
Invasive diagnosis (1)					
No	93,3	<,0001	9 751	93,6	93,1 94,1
Yes, amniocentesis	3,6		207	2,0	1,7 2,3
Yes, trophoblast biopsy	0,6		53	0,5	0,4 0,7
Does not know	2,5		404	3,9	3,5 4,3
	(10 728)		(10 415)		

(1) Denominator: number of women

(2) Different wording question in 2016: serum markers only to know the risk of Down syndrom

Table 18: Screening examinations for maternal complications

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Screening for gestational diabetes (1)					
Yes	73,2	<,0001	8 317	76,1	75,3 - 76,9
No	25,9		2 495	22,8	22,1 - 23,6
Does not know	0,9		116	1,1	0,9 - 1,3
	(11 741)		(10 928)		
Screening for cervical cancer in the last 3 years or during pregnancy (1,2)					
Yes	70,1	<,0001	6 686	61,2	60,3 - 62,1
No	19,7		3 910	35,8	34,9 - 36,7
Does not know	10,2		332	3,0	2,7 - 3,4
	(11 657)		(10 928)		
Serologic status for toxoplasmosis (1)					
Absence of antibodies	69,6	<,0001	8 993	74,9	74,1 - 75,7
Presence of specific IgG	30,0		2 965	24,7	23,9 - 25,5
Seroconversion	0,2		22	0,2	0,1 - 0,3
Unkwown	0,2		28	0,2	0,2 - 0,3
	(12 514)		(12 008)		
Serology of syphilis during pregnancy (1)					
Yes, once	-		10 465	87,2	86,6 - 87,8
Yes, repeatedly	-		126	1,1	0,9 - 1,3
Yes, number of times not specified	-		1 155	9,6	9,1 - 10,2
Non	-		65	0,5	0,4 - 0,7
Information not available	-		187	1,6	1,3 - 1,8
			(11 998)		

(1) Denominator: number of women

(2) Includes only cervical smear in 2016 and cervical smear and vaginal self-sampling in 2021

Table 19: Information and prevention during pregnancy

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Folic acid consumption to prevent neural tube defects [1]					
Yes	55,7	<,0001	8 582	78,6	77,8 - 79,4
No	41,4		2 245	20,6	19,8 - 21,3
Does not know	2,9		93	0,8	0,7 - 1,0
	(11 736)		(10 920)		
Time of beginning					
3 months or more before pregnancy	40,7	<,0001	1 636	19,3	18,5 - 20,2
1 to 2 months before pregnancy			1 346	15,9	15,1 - 16,7
In the first month of pregnancy	33,4		2 860	33,8	32,8 - 34,8
2 to 3 months of pregnancy	24,7		1 387	16,4	15,6 - 17,2
After the 3rd month of pregnancy			1 076	12,7	12,0 - 13,4
Does not remember	1,1		159	1,9	1,6 - 2,2
	(6 366)		(8 464)		
Folic acid consumption before pregnancy [1,2]	23,2	<,0001	2 982	28,3	27,4 - 29,1
	(11 157)		(10 550)		
Dietician consultation (or informational meeting) [1]					-
Yes	12,7	<,0001	1 615	14,8	14,1 - 15,5
No	87,3		9 310	85,2	84,5 - 85,9
	(11 737)		(10 925)		
					-
Advice received to limit transmission of cytomegalovirus [1]					-
Yes	-		1 742	16,0	15,3 - 16,7
No	-		8 150	74,7	73,9 - 75,5
Does not know	-		1 019	9,3	8,8 - 9,9
			(10 911)		

(1) Denominator: number of women

(2) Denominator calculated among women who did not take folic acid or who knew when to take it

Table 20: Influenza vaccination

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Proposed/recommended flu vaccination [1]					
Yes	-		6 440	58,9	58,0 - 59,9
No	-		4 377	40,1	39,2 - 41,0
Does not know	-		106	1,0	0,8 - 1,2
			(10 923)		
Flu vaccination [1]					
Yes	7,4	<,0001	3 298	30,4	29,6 - 31,3
No	92,1		7 540	69,6	68,7 - 70,4
Does not know	0,5		-	-	
	(11 719)		(10 838)		
Prescriber of influenza vaccine [1]					
Gynaecologist-Obstetrician	35,7	<,0001	922	30,5	28,8 - 32,1
Midwife	12,7		809	26,7	25,2 - 28,3
Generalist pratictioner	31,9		583	19,3	17,9 - 20,7
Pharmacist			168	5,5	4,8 - 6,4
Occupational physician	19,7		281	9,3	8,3 - 10,4
Other			264	8,7	7,7 - 9,8
	(852)		(3 027)		
Reasons for no vaccination [1,2]					
Not offered	-		2 869	41,4	40,2 - 42,6
Fear of adverse effects for the baby	-		1 657	23,9	22,9 - 24,9
Fear of adverse effects for the women	-		1 099	15,8	15,0 - 16,7
Not afraid of having the flu	-		1 528	22,0	21,1 - 23,0
Distrust of vaccines	-		1 518	21,9	20,9 - 22,9
Other reasons	-		1 437	20,7	19,8 - 21,7
			(6 934)		

(1) Denominator: number of women

(2) Denominator calculated if at least one answer is checked in the list of reasons

Table 21: Health litteracy during the pregnancy [1]

(Live births in metropolitan France)

	2021		
	n	%	95 % IC
During the pregnancy,			
Have good discussions about your health…[2]			
Cannot do or always difficult	32	0,3	0,2 - 0,4
Usually difficult	131	1,2	1,0 - 1,4
Sometimes difficult	550	5,1	4,7 - 5,5
Usually easy	3 442	31,7	30,8 - 32,6
Always easy	6 697	61,7	60,8 - 62,6
Discuss things with healthcare providers...[2]			
Cannot do or always difficult	40	0,4	0,3 - 0,5
Usually difficult	147	1,4	1,2 - 1,6
Sometimes difficult	999	9,2	8,7 - 9,8
Usually easy	3 615	33,3	32,4 - 34,2
Always easy	6 051	55,8	54,8 - 56,7
Ask healthcare providers questions to get…[2]			
Cannot do or always difficult	40	0,4	0,3 - 0,5
Usually difficult	145	1,3	1,1 - 1,6
Sometimes difficult	734	6,8	6,3 - 7,3
Usually easy	3 341	30,8	29,9 - 31,7
Always easy	6 592	60,7	59,8 - 61,7
Make sure that healthcare providers understand…[2]			
Cannot do or always difficult	44	0,4	0,3 - 0,5
Usually difficult	167	1,5	1,3 - 1,8
Sometimes difficult	825	7,6	7,1 - 8,1
Usually easy	3 372	31,1	30,2 - 32,0
Always easy	6 444	59,4	58,5 - 60,3
Feel able to discuss about health concerns with a…[2]			
Cannot do or always difficult	54	0,5	0,4 - 0,7
Usually difficult	144	1,3	1,1 - 1,6
Sometimes difficult	608	5,6	5,2 - 6,1
Usually easy	3 180	29,3	28,5 - 30,2
Always easy	6 866	63,3	62,4 - 64,2
Mean ± standard deviation for all items		4,5 ± 0,6	
Score <3,5	612	5,6	5,2 - 6,1
	(10 852)		

(1) Scale 6 of Health Literacy Questionnaire (HLQ) =Ability to actively engage with healthcare providers ('Engagement')

(2) Denominator: number of women, HLQ™ items are truncated. HLQ is protected by copyright and cannot be used without permission of the authors

Table 22: Maternal health status and medical history

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Genital mutilation [1]	-		113	0,9	0,8 - 1,1
			(11 949)		
Family history of diabetes [1]					
Yes	23,7	0,0800	2 539	23,2	22,4 - 24,0
No	75,2		8 300	76,0	75,1 - 76,7
Does not know	1,1		90	0,8	0,7 - 1,0
	(11 731)		(10 929)		
Diabetes before pregnancy [1]					
Yes, IDDM (type 1)	0,3	<,0001	32	0,3	0,2 - 0,4
Yes, NIDDM (type 2)	0,2		33	0,3	0,2 - 0,4
Yes, gestational diabetes	1,8		321	2,6	2,4 - 3,0
No	97,7		11 628	96,8	96,5 - 97,1
	(12 477)		(12 014)		
Hypertension before pregnancy [1]					
Yes, chronic hypertension	0,7	0,0544	109	0,9	0,7 - 1,1
Yes, hypertension during another pregnancy	1,3		142	1,2	1,0 - 1,4
No	98,0		11 774	97,9	97,6 - 98,2
	(12 493)		(12 025)		
Number of induced abortions [1,2]					
0	83,6	0,0150	10 196	84,8	84,2 - 85,5
1	12,6		1 445	12,0	11,4 - 12,6
2	3,0		290	2,4	2,2 - 2,7
≥ 3	0,8		91	0,8	0,6 - 0,9
	(11 531)		(12 022)		

(1) Denominator: number of women

(2) Information from interview in 2016, medical record data in 2021

Table 23: Obstetric history

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Parity [1]					
0	42,4	0,0027	4 974	41,3	40,5 - 42,2
1	35,7		4 217	35,1	34,2 - 35,9
2	14,2		1 766	14,7	14,1 - 15,3
≥ 3	7,7		1 076	8,9	8,4 - 9,5
	(12 548)		(12 033)		
Obstetric history					
Stillbirth [1,2]	3,7	<,0001	150	2,1	1,8 - 2,5
	(7 187)		(7 056)		
Neonatal death [1,2]	0,9	0,4902	59	0,8	0,6 - 1,1
	(7 184)		(7 043)		
Preterm delivery [1,2]	6,5	0,5142	439	6,2	5,7 - 6,8
	(7 180)		(7 054)		
Newborn with growth restriction [1,2]	6,9	0,8121	479	6,8	6,2 - 7,4
	(7 170)		(7 041)		
Newborn with macrosomia [1,2]	6,3	0,5119	426	6,1	5,5 - 6,6
	(7 170)		(7 038)		
Stillbirth, neonatal death, preterm delivery or fetal growth restriction [1,2]	14,8	0,0032	923	13,1	12,3 - 13,9
	(7 195)		(7 058)		
Cesarean [1,2]					
None	80,2	0,1731	5 596	79,3	78,3 - 80,2
1	16,2		1 163	16,5	15,6 - 17,4
2 or more	3,6		298	4,2	3,8 - 4,7
	(7 223)		(7 057)		

(1) Denominator: number of women

(2) Denominator: number of paras women

Table 24: Hospitalisation and complications during pregnancy (part 1)

(Live births in metropolitan France)

	2016		2021	
	%	p	n	%	95 % IC
In utero transfer [1]					
Yes	1,7	0,2292	232	1,9	1,7 - 2,2
No	98,3		11 681	98,1	97,8 - 98,3
	(12 105)		(11 913)		
Corticosteroid treatment [1]					
Yes	5,9	0,0003	580	4,8	4,5 - 5,2
No	94,1		11 392	95,2	94,8 - 95,5
	(12 419)		(11 972)		
***If yes, g*estational age at first course of treatment** [1]					
≤ 25 weeks	8,3	0,0001	65	11,5	8,9 - 14,4
26 - 33	79,6		471	82,9	79,6 - 85,9
≥ 34	12,1		32	5,6	3,9 - 7,9
	(716)		(568)		
Threatened preterm delivery with hospitalisation [1])					
Yes	5,4	0,0208	572	4,8	4,5 - 5,2
No	94,6		11 429	95,2	94,8 - 95,5
	(12 500)		(12 001)		
If yes, duration of hospitalization [1]					
1 day	9,9	0,2096	65	11,9	9,3 - 14,9
2	19,1		115	21,0	17,7 - 24,6
3 -7	49,2		260	47,4	43,2 - 51,7
8 - 14	10,7		66	12,0	9,4 - 15,1
≥ 15	11,1		42	7,7	5,6 - 10,2
	(656)		(548)		
***Mean* ± standard deviation** [1]	7,2 ± 10,3			6,0 ± 8,1	
Hypertension during pregnancy [1]					
Yes, with proteinuria [2]	2,0	0,1786	273	2,3	2,0 - 2,6
Yes, without proteinuria	2,3		241	2,0	1,8 - 2,3
No	95,7		11 457	95,7	95,3 - 96,1
	(12 478)		(11 971)		
***If yes, g*estational age at diagnosis** [1]					
≤ 28 weeks	12,1	0,6492	61	13,3	11,5 - 18,2
29-31	7,6		31	6,8	5,0 - 10,0
32-36	41,5		175	38,1	38,8 - 48,0
≥ 37	38,8		192	41,8	30,5 - 39,4
	(446)		(459)		
If yes, hospitalisation [1]					
Yes	57,8	0,0214	314	65,0	60,6 - 69,3
Non	42,2		169	35,0	30,7 - 39,4
	(481)		(483)		

(1) Denominator: number of women

(2) With proteinuria ≥ 0.3 g/L or per 24 h

Table 25: Hospitalisation and complications during pregnancy (part 2)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Gestational diabetes [1]					
Yes, treated with insulin	3,2	<,0001	565	4,7	4,3 - 5,1
Yes, treated by diet	7,2		1 365	11,4	10,8 - 12,0
Yes, treatment not reported	0,4		37	0,3	0,2 - 0,4
No	89,2		10 025	83,6	82,9 - 84,3
	(12 493)		(11 992)		
Placental localization in late pregnancy [1]					
Bottom inserted anterior	1,1	0,0020	57	0,5	0,4 - 0,6
Bottom inserted posterior			60	0,5	0,4 - 0,7
Bottom inserted without precision			26	0,2	0,2 - 0,3
Covering			33	0,3	0,2 - 0,4
Normally inserted	98,9		11 439	98,5	98,3 - 98,7
	(12 464)		(11 615)		
If bottom placenta inserted, hospitalisation for haemorrhage after 22 weeks [1]	-		35	26,1	18,9 - 34,4
			(134)		
Anemia during pregnancy [1,2]	-		3 001	25,2	24,4 - 26,0
			(11 912)		
Intravenous iron injection during pregnancy [1]	-		340	2,8	2,6 - 3,2
			(11 951)		
Coronavirus infection during pregnancy [1]	-		678	5,7	5,3 - 6,1
			(11 930)		
Trimester of infection [1]					
≤ 14 weeks	-		64	9,8	7,7 - 12,4
15-27	-		266	40,9	37,1 - 44,8
≥ 28	-		320	49,3	45,3 - 53,2
			(650)		
Suspected fetal weight anormaly [1]					
Yes, fetal growth restriction/SGA	5,3	<,0001	589	5,2	4,8 - 5,7
Yes, macrosomia	5,0		985	8,7	8,2 - 9,3
No	89,7		9 709	86,1	85,4 - 86,7
	(12 464)		(11 283)		

(1) Denominator: number of women

(2) Hemoglobin < 11g/dl

Table 26: Place of delivery

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Status of the maternity unit [1,2,3]					
University or regional hospital centre	19,6	0,0020	2 495	20,7	19,9 - 21,4
Community hospital centre	49,5		6 056	50,1	49,2 - 51,0
ESPIC [4]	7,4		930	7,7	7,2 - 8,2
Private for-profit establishment	23,5		2 598	21,5	20,8 - 22,3
	(12 552)		(12 079)		
Level of care of the maternity unit [1,2,3]					
Level I	22,6	<,0001	2 434	20,2	19,4 - 20,9
Level II A	29,3		3 490	28,9	28,1 - 29,7
Level II B	21,9		2 923	24,2	23,4 - 25,0
Level III	26,2		3 232	26,8	26,0 - 27,6
	(12 548)		(12 079)		
Maternity unit size [1,3,5]					
< 500 deliveries/year	2,6	<,0001	342	2,8	2,5 - 3,1
500-999	14,9		1 919	15,9	15,2 - 16,5
1000-1499	16,0		1 950	16,1	15,5 - 16,8
1500-1999	14,9		1 647	13,6	13,0 - 14,3
2000-2999	22,7		2 451	20,3	19,6 - 21,0
3000-3499	13,3		1 937	16,0	15,4 - 16,7
3500-4499	9,3		1 171	9,7	9,2 - 10,2
≥ 4500	6,3		671	5,6	5,2 - 6,0
	(12 552)		(12 088)		
Time to travel from home to maternity unit [1]					
< 30 min	76,2	0,0076	8 023	74,4	73,6 - 75,3
30-44 min	16,6		1 915	17,8	17,1 - 18,5
≥ 45 min	7,2		841	7,8	7,3 - 8,3
	(11 619)		(10 779)		
Mode of transport to give birth [1]					
Car	-		9 571	87,7	87,0 - 88,3
Public transit	-		251	2,3	2,0 - 2,6
Taxi	-		311	2,8	2,5 - 3,2
Emergency transport	-		592	5,4	5,0 - 5,9
Other transport	-		194	1,8	1,5 - 2,0
			(10 919)		

(1) Denominator: number of women

(2) 9 women who gave birth in birthing centers not taken into account

(3) Including 65 home deliveries and 21 deliveries in another location (emergeny transport, car,…) in 2021

(4) Private non-profit hospital

(5) Number of deliveries in 2015 or 2020

Table 27: Women's requests about delivery

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Specific requets for delivery (1)					
Yes, wrote a birth plan	3,7	<,0001	1 119	10,2	9,7 - 10,8
Yes, expressed requets on arrival at the maternity ward	17,2		2 009	18,4	17,7 - 19,1
Yes, without specifying whether written or oral	1,9		140	1,3	1,1 - 1,5
No, no particular requests	77,2		7 648	70,1	69,2 - 70,9
	(11 691)		(10 916)		
Specific wishes for delivery expressed with maternity team (1)	-		3 006	92,5	91,5 - 93,4
			(3 251)		
Type of requests					
Being able to drink and/or eat (1,2)	-		1 088	34,1	32,4 - 35,8
Being able to walk, moove (1,2)	-		1 918	60,1	58,4 - 61,8
Doing skin-to-skin contact (1,2)	-		2 150	67,3	65,7 - 69,0
Limiting medical procedures (1,2,3)	-		1 668	52,2	50,5 - 54,0
Having soft light and/or music (1,2)	-		1 049	32,9	31,2 - 34,5
Wear personal clothing (1,2)	-		406	12,7	11,6 - 13,9
Wish for epidural analgesia before delivery (1,2)	-		1 220	38,2	36,5 - 39,9
Other requests (1,2)	-		1 259	39,4	37,7 - 41,2
			(3 193)		

(1) Denominator: number of women

(2) Denominator calculated if at least one answer is checked in the list of requests

(3) Episiotomy, cesarean or use of oxytocin

Table 28: Labour

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Fetal presentation [1]					
Cephalic	94,8	0,5696	11 604	95,0	94,6 - 95,4
Breech	4,6		528	4,3	4,0 - 4,7
Other	0,6		78	0,7	0,5 - 0,8
	(12 727)		(12 210)		
Mode of labour onset [2]					
Spontaneous labour	68,7	<,0001	7 686	63,8	63,0 - 64,7
Induced labour	22,0		3 111	25,8	25,1 - 26,6
Scheduled cesarean	9,3		860	7,1	6,7 - 7,6
Emergency cesarean before labour			384	3,2	2,9 - 3,5
	(12 548)		(12 041)		
If induction, initial method [2]					
Artificial rupture of membranes	38,1	<,0001	140	4,5	3,8 - 5,3
Oxytocin alone			640	20,6	19,2 - 22,1
Artificial rupture of membranes and oxytocin			177	5,7	4,9 - 6,6
Cervical ripening	61,9		2 147	69,2	67,5 - 70,8
	(2 722)		(3 104)		
If cervical ripening [2]					
Intravaginal prostaglandin device	-		1 040	48,7	46,5 - 50,8
Prostaglandin gel	-		207	9,7	8,5 - 11,0
Misoprostol	-		367	17,2	15,6 - 18,8
Cervical ripening balloon	-		512	24,0	22,2 - 25,8
Other	-		11	0,5	0,3 - 0,9
			(2 137)		
Rupture of membranes					
Among the vaginal delivery attempts [2,3]					
Artificial	43,7	<,0001	4 098	38,9	38,0 - 39,8
Spontanaous before labour	29,3		3 323	31,5	30,7 - 32,4
Spontaneous during labour	27,0		3 113	29,6	28,7 - 30,4
	(11 123)		(10 534)		
Among the women with spontaneous labour [2]					
Artificial	41,4	<,0001	2 484	33,2	32,1 - 34,2
Spontanaous before labour	28,1		2 460	32,8	31,8 - 33,9
Spontaneous during labour	30,5		2 546	34,0	32,9 - 35,1
	(8 426)		(7 490)		
Oxytocin during labour					
Among the vaginal delivery attempts [2,3]	52,5	<,0001	4 396	41,3	40,4 - 42,3
	(11 234)		(10 637)		
Among the women with spontaneous labour [2]	44,4	<,0001	2 282	30,0	29,0 - 31,1
	(8 538)		(7 599)		

(1) Denominator: number of births

(2) Denominator: number of women

(3) Spontaneous labour, cervical ripening or induction of labour

Table 29: Reasons for induction or cesarean section before labour

(Live births in metropolitan France)

	2021		
	n	%	95 % IC
Main reason for inducing labour [(1)]			
Post-term or post-term prevention	726	23,5	22,0 - 25,0
Premature rupture of membranes	630	20,4	19,0 - 21,9
Presentation anomaly	11	0,4	0,2 - 0,6
SGA or hypotrophy	140	4,5	3,8 - 5,3
Macrosomia	264	8,5	7,6 - 9,6
Another anomaly of fetal vitality	326	10,5	9,5 - 11,7
Previous cesarean	15	0,5	0,3 - 0,8
Gestational or pre-existing diabetes	293	9,5	8,5 - 10,6
Hypertensive maternal pathology	247	8,0	7,1 - 9,0
Other maternal pathology	183	5,9	5,1 - 6,8
Other reason	147	4,8	4,0 - 5,6
No medical reason	108	3,5	2,9 - 4,2
	(3 090)		
Main reason for cesarean before labour [(1)]			
Post-term or post-term prevention	18	1,5	0,9 - 2,4
Premature rupture of membranes	29	2,4	1,6 - 3,5
Presentation anomaly	207	17,4	15,2 - 19,6
SGA or hypotrophy	42	3,5	2,6 - 4,7
Macrosomia	36	3,0	2,1 - 4,2
Another anomaly of fetal vitality	96	8,0	6,6 - 9,7
Previous cesarean	475	39,8	37,0 - 42,7
Gestational or pre-existing diabetes	11	0,9	0,5 - 1,6
Placenta praevia	44	3,7	2,7 - 4,9
Hypertensive maternal pathology	60	5,0	3,9 - 6,4
Other maternal pathology	96	8,1	6,6 - 9,7
Other reason	67	5,6	4,4 - 7,1
No medical reason	12	1,0	0,5 - 1,8
	(1 193)		

(1) Denominator: number of women

Table 30: Delivery (part 1)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Mode of delivery [1]					
Spontaneous vaginal delivery	67,5	0,0459	8 126	66,2	65,3 - 67,0
Instrumental vaginal delivery	12,2		1 529	12,4	11,9 - 13,0
Cesarean	20,2		2 629	21,4	20,7 - 22,1
	(12 755)		(12 284)		
Instruments [1]					
Forceps	27,6	<,0001	318	20,9	18,9 - 23,0
Spatulas	22,6		289	18,9	17,0 - 21,0
Vacuum extraction	49,8		917	60,2	57,7 - 62,6
	(1 561)		(1 524)		
Professional attending childbirth [1,2]					
Midwife	58,6	0,0149	6 422	57,1	56,1 - 58,0
Gynaecologist-Obstetrician	41,4		4 832	42,9	42,0 - 43,9
	(11 928)		(11 254)		
Main reason of instrument [3]					
Stagnation / non- commitment	-		620	52,6	49,7 - 55,5
Fetal heart rhythm abnormality	-		518	44,0	41,1 - 46,9
Other fetal reason	-		18	1,5	0,9 - 2,4
Other reason	-		22	1,9	1,2 - 2,8
			(1 178)		
Main reason of caeserean during labour [3]					
Stagnation / non- commitment	-		572	46,5	43,7 - 49,3
Fetal heart rhythm abnormality	-		456	37,1	34,4 - 39,8
Other fetal reason	-		79	6,4	5,1 - 7,9
Maternal indication	-		54	4,4	3,3 - 5,7
Other reason	-		69	5,6	4,4 - 7,1
			(1 230)		

(1) Denominator: number of live births

(2) Denominator: number of births in maternity unit

(3) Denominator: number of women

Table 31: Delivery (part 2)

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Antibiotic therapy during labour [1]					
Yes	-		3 455	28,9	28,1 - 29,7
No	-		8 502	71,1	70,3 - 71,9
			(11 957)		
Oxytocin to prevent postpartum haemorrhage [1]					
Yes, bolus or slow intravenous injection	41,9	<,0001	7 178	60,5	59,6 - 61,3
Yes, maintenance intravenous injection	8,4		558	4,7	4,3 - 5,1
Yes, both	42,4		3 163	26,6	25,9 - 27,5
No	7,3		974	8,2	7,7 - 8,7
	(12 429)		(11 873)		
Blood loss during childbirth [1]					
< 500 ml	-		9 002	88,4	87,8 - 89,1
500-999	-		871	8,6	8,0 - 9,1
≥1000	-		303	3,0	2,7 - 3,3
			(10 176)		
Severe postpartum hemorrhage [1,2]					
Yes	1,8	<,0001	355	3,0	2,7 - 3,3
No	98,2		11 575	97,0	96,7 - 97,3
	(12 271)		(11 930)		

(1) Denominator: number of women

(2) Blood loss > 1000ml, embolization, surgery or transfusion

Table 32: Spontaneous delivery

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Position at the beginning of expulsive efforts [1]					
Supine (on her back)	88,5	<,0001	7 552	87,2	86,5 - 87,9
Lateral (on one side)	8,4		733	8,5	7,9 - 9,1
On all fours, or kneeling	1,2		172	2,0	1,7 - 2,3
Seated, squatting	1,3		128	1,5	1,2 - 1,8
Other	0,6		74	0,8	0,7 - 1,1
	(9 400)		(8 659)		
Position at expulsion [1]					
Supine (on her back)	95,5	<,0001	8 143	93,9	93,4 - 94,4
Lateral (on one side)	2,9		291	3,4	3,0 - 3,8
On all fours, or kneeling	0,7		119	1,4	1,1 - 1,6
Seated, squatting	0,7		79	0,9	0,7 - 1,1
Other	0,2		37	0,4	0,3 - 0,6
	(9 432)		(8 669)		
Episiotomy [1]	20,1	<,0001	787	8,3	7,8 - 8,9
	(9 981)		(9 467)		
Nulliparous	34,9	<,0001	623	16,5	15,3 - 17,7
	(4 083)		(3 781)		
Parous	9,8	<,0001	164	2,9	2,5 - 3,4
	(5 898)		(5 679)		
Spontaneous delivery	13,6	<,0001	365	4,6	4,1 - 5,1
	(8 447)		(7 972)		
Instruments	55,6	<,0001	422	28,2	26,0 - 30,6
	(1 534)		(1 495)		
Perineal tears [1]					
Yes, first and second degree	51,3	<,0001	5 576	58,8	57,9 - 59,8
Yes, third- and fourth-degree	0,8		102	1,1	0,9 - 1,3
No	47,9		3 799	40,1	39,1 - 41,1
	(9 834)		(9 477)		
If spontaneous delivery, professional attending childbirth [2]					
Midwife	87,5	0,0366	6 422	88,6	87,9 - 89,4
Gynaecologist-Obstetrician	12,5		824	11,4	10,7 - 12,1
	(7 986)		(7 246)		

(1) Denominator: number of women ayant accouché par voie basse

(2) Denominator: number of live births in maternity unit by vaginal delivery

Table 33: Distribution of women, the cesarean rate and the contribution to the global cesarean rate for each group in Robson's classification[1]
(Women with a child born in life in metropolitan France)

	2016				2021			
	Number of cesareans/Total women	Relative size (%)	Cesarean rate (%)	Contribution to overall rate (%)	Number of cesareans/Total women	Relative size (%)	Cesarean rate (%)	Contribution to overall rate (%)
1. Nulliparous, single cephalic, ≥ 37 weeks, in spontaneous labour	352	3 296	26,4	10,7	2,8	331	2 958	24,6	11,2	2,8
2. Nulliparous, single cephalic, ≥ 37 weeks, induced or cesarean before labour	470	1 357	10,9	34,6	3,8	496	1 445	12,0	34,3	4,1
2a. Induced	372	1259	10,1	29,5	3,0	381	1 330	11,1	28,6	3,2
2b. Cesarean before labour	98	98	0,8	100,0	0,8	115	115	1,0	100,0	1,0
3. Multiparous, single cephalic, ≥ 37 weeks, in spontaneous labour [2]	61	4 078	32,7	1,5	0,5	72	3 679	30,7	2,0	0,6
4. Multiparous, single cephalic, ≥ 37 weeks, induced or caesarean before labour [2]	159	1 196	9,6	13,3	1,3	178	1 451	12,1	12,3	1,5
4a. Induced	91	1 128	9,0	8,1	0,7	91	1 364	11,4	6,7	0,8
4b. Cesarean before labour	68	68	0,5	100,0	0,5	87	87	0,7	100,0	0,7
5. Previous cesarean, single cephalic, ≥ 37 weeks	680	1 244	10,0	54,7	5,4	722	1 254	10,4	57,6	6,0
6. All nulliparous breeches	204	245	2,0	83,3	1,6	177	217	1,8	81,6	1,5
7. All multiparous breeches [3]	153	195	1,6	78,5	1,2	154	186	1,5	82,8	1,3
8. All multiple pregnancies[3,4]	118	219	1,8	53,9	0,9	119	198	1,6	60,1	1,0
9. All abnormal lies[3]	52	52	0,4	100,0	0,4	38	42	0,3	90,5	0,3
10. All single cephalic, ≤ 36 weeks[3]	184	608	4,9	30,3	1,5	202	571	4,8	35,4	1,7
Total	(2 433)	(12 490)	100,0		19,5	(2 489)	(12 001)	100,0		0,0

(1) The Robson's classification classifies women into 10 groups (according to maternal and fetal characteristics) and calculates for each groups both its cesarean rate and its contribution to the global cesarean rate

(2) Previous cesarean excluded

(3) Previous cesarean included

(4) Classified as cesarean if one child was born by vaginal delivery and another by cesarean

Table 34: Analgesia and anaesthesia

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Type of analgesia during labour (1,2)					
No analgesia	17,3	<,0001	1 591	14,9	14,2 - 15,6
Epidural analgesia	81,4		8 830	82,7	82,0 - 83,4
Spinal analgesia	0,4		131	1,2	1,0 - 1,5
Combined spinal epidural analgesia	0,8		63	0,6	0,5 - 0,8
Intravenous analgesia	0,1		20	0,2	0,1 - 0,3
Other	-		43	0,4	0,3 - 0,5
	(11 154)		(10 678)		
PCEA, if epidural analgesia (alone or combined with spinal) (1,2,3)					
Yes	53,8	<,0001	5 876	74,2	73,2 - 75,1
No	46,2		2 046	25,8	24,9 - 26,8
	(8 424)		(7 922)		
If instruments or caeserean, type of analgesia at expulsion (1)					
No analgesia	1,4	<,0001	57	1,4	1,1 - 1,9
Epidural analgesia	60,5		2 254	56,5	54,9 - 58,0
Spinal analgesia	32,7		1 348	33,8	32,3 - 35,3
Combined spinal epidural analgesia	1,4		153	3,8	3,3 - 4,5
General anaesthesia	3,6		167	4,2	3,6 - 4,9
Other	0,4		12	0,3	0,2 - 0,5
	(3 994)		(3 991)		
Consumption of drink and food in the delivery room (1)					
Yes, drinks only	-		5 182	53,7	52,6 - 54,6
Yes, food only	-		13	0,1	0,1 - 0,2
Yes, drinks and food	-		636	6,6	6,1 - 7,1
No	-		3 829	39,6	38,7 - 40,6
			(9 660)		

(1) Denominator: number of women

(2) If attempted vaginal delivery

(3) Patient-conrolled epidural analgesia: pump for autonomous anesthetic reinjection management

Table 35: Pain management

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Wish for epidural analgesia before delivery (1,2)					
Yes, absolutely	64,3	<,0001	6 299	65,6	64,7 - 66,6
Yes, perhaps	21,1		1 716	17,9	17,1 - 18,6
No	14,6		1 587	16,5	15,8 - 17,3
	(10 518)		(9 602)		
Effectiveness of the epidural analgesia in relieving pain (1,2)					
Perfectly effective	-		5 686	70,8	69,9 - 71,9
Effective	-		407	5,1	4,6 - 5,6
Little or partly effective	-		1 577	19,6	18,7 - 20,5
Totally ineffective	-		289	3,6	3,2 - 4,0
Other	-		74	0,9	0,7 - 1,2
			(8 033)		
Medical method used for management of pain and contractions (1,2)	28,5	0,4703	2 771	28,9	28,1 - 29,9
	(10 162)		(9 577)		
Drugs by injection or infusion (3)	-		1 335	13,9	13,3 - 14,7
Drugs in tablets (3)	-		1 009	10,5	9,9 - 11,2
Gas to breathe (3)	-		953	10,0	9,3 - 10,5
Use of a non-pharmaceutical method (1,2)	35,5	<,0001	4 714	49,2	48,1 - 50,1
	(10 329)		(9 572)		
Balloon, walking, choice of position (3)	-		4 042	42,2	41,2 - 43,1
Bath or shower during labour (3)	-		2 172	22,7	21,8 - 23,5
Massages (3)	-		1 185	12,4	11,7 - 13,0
Hypnosis or sophrology (3)	-		309	3,2	2,9 - 3,6
Acupuncture or acupressure (3)	-		504	5,3	4,8 - 5,7
Other method (3)	-		298	3,1	2,8 - *3,5*
Satisfaction with the method used for management of pain and contractions (1,2,4)					
Very satisfied	61,3	0,0001	5 901	62,6	61,6 - 63,6
Fairly satisfied	27,0		2 607	27,7	26,8 - 28,6
Not sufficiently satisfied	7,7		589	6,2	5,8 - 6,8
Not at all satisfied	4,0		328	3,5	3,1 - 3,8
	(10 278)		(9 425)		

(1) Denominator: number of women

(2) If attempted vaginal delivery

(3) Denominator calculated if at least one answer is checked

(4) Including epidural

Table 36: Pain during childbirth

(Live births in metropolitan France)

	2021		
	n	%	95 % IC
If spontaneous vaginal delivery, pain felt when the head's baby comes out [1)]			
0 (no pain)	1 886	26,7	25,7 - 27,7
1 - 3	1 200	17,0	16,1 - 17,9
4 - 6	1 098	15,5	14,7 - 16,4
7 - 10 (unbearable)	2 882	40,8	39,6 - 41,9
	(7 066)		
If spontaneous vaginal delivery with analgesia, pain felt when the head's baby comes out [(1)]			
0 (no pain)	1 866	32,7	31,5 - 34,0
1 - 3	1 161	20,4	19,3 - 21,4
4 - 6	981	17,2	16,2 - 18,2
7 - 10 (unbearable)	1 693	29,7	28,5 - 30,9
	(5 701)		
If instrumental vaginal delivery, pain felt at the time of maneuvers [(1)]			
0 (no pain)	402	29,6	27,2 - 32,2
1 - 3	207	15,3	13,4 - 17,3
4 - 6	201	14,8	13,0 - 16,8
7 - 10 (unbearable)	546	40,3	37,6 - 42,9
	(1 356)		
If instrumental vaginal delivery with analgesia, pain felt at the time of maneuvers [(1)]			
0 (no pain)	398	31,0	28,4 33,6
1 - 3	205	15,9	14,0 18,1
4 - 6	197	15,3	13,4 17,4
7 - 10 (unbearable)	486	37,8	35,1 40,5
	(1 286)		
If episiotomy or perineal tear, pain felt at the time of suture [(1)]			
0 (no pain)	2 859	53,1	51,7 - 54,4
1 - 3	1 301	24,1	23,0 - 25,3
4 - 6	747	13,9	13,0 - 14,8
7 - 10 (unbearable)	482	8,9	8,2 - 9,7
	(5 389)		

(1) Denominator: number of women

Table 37: Pain during cesarean

(Live births in metropolitan France)

	2021		
	n	%	95 % IC
Pain felt at the beginning of the cesarean [1]			
0 (no pain)	1 536	68,9	66,9 - 70,8
1 - 3	271	12,2	10,8 - 13,6
4 - 6	191	8,6	7,4 - 9,8
7 - 10 (unbearable)	232	10,4	9,2 - 11,8
	(2 230)		
Pain felt just after the baby's birth [1]			
0 (no pain)	1 587	71,6	69,7 - 73,5
1 - 3	269	12,1	10,8 - 13,6
4 - 6	190	8,6	7,4 - 9,8
7 - 10 (unbearable)	171	7,7	6,6 - 8,9
	(2 217)		
If pain, pain taken into account by the team in the operating room [1]			
Yes	794	90,3	88,2 - 92,2
No	85	9,7	7,8 - 11,8
	(879)		

(1) Denominator: number of women

Table 38: Onset of labour and mode of delivery by gestational age and birth weight

(Live births in metropolitan France)

		2016								2021							
		Onset of labour				Mode of delivery				Onset of labour				Mode of delivery			
		Spon	Indu	Cesar	n	SVD	IVD	Cesar	n	Spon	Indu	Cesar	n	SVD	IVD	Cesar	n
Gestational age [1]																	
≤ 34 weeks	%	54,3	7,0	38,7	(370)	38,1	5,4	56,5	(370)	45,3	7,8	46,9	(322)	38,0	4,4	57,6	(382)
35-36	%	56,3	27,4	16,3	(551)	60,3	9,1	30,6	(549)	55,2	24,0	20,8	(433)	56,5	7,5	36,0	(480)
37	%	58,3	26,1	15,6	(922)	63,6	8,9	27,5	(920)	50,5	33,3	16,2	(735)	60,6	8,5	30,9	(779)
38	%	59,0	24,9	16,1	(2 008)	66,3	8,8	24,9	(2 007)	54,0	27,7	18,3	(1 982)	62,4	9,3	28,3	(2 021)
39	%	71,4	17,9	10,7	(3 427)	70,1	11,1	18,8	(3 427)	64,8	23,3	11,9	(3 362)	69,1	11,9	19,0	(3 370)
40	%	85,3	12,1	2,6	(3 258)	73,2	15,1	11,7	(3 256)	84,8	13,2	2,0	(3 016)	73,7	14,4	11,9	(3 015)
41	%	57,2	39,0	3,8	(2 149)	65,3	16,0	18,7	(2 148)	52,3	44,7	3,0	(2 122)	64,3	17,6	18,1	(2 122)
≥ 42	%	14,5	85,5	0,0	(62)	51,6	21,0	27,4	(62)	9,4	90,6	0,0	(64)	37,5	18,8	43,7	(64)
N									(12 739)								(12 233)
Birth weight [1]																	
< 1500 g	%	47,2	3,2	49,6	(123)	28,5	0,8	70,7	(123)	33,3	1,8	64,9	(114)	24,3	0,0	75,7	(136)
1 500 - 1 999	%	46,0	15,1	38,9	(185)	39,1	4,9	56,0	(184)	35,0	25,5	39,4	(137)	37,6	4,8	57,6	(165)
2 000 - 2 499	%	52,7	29,8	17,5	(611)	55,2	8,7	36,1	(611)	47,8	33,0	19,2	(479)	53,9	9,6	36,5	(551)
2 500 - 2 999	%	67,1	23,0	9,9	(2 632)	68,1	11,7	20,2	(2 630)	65,8	23,2	11,0	(2 280)	64,7	13,5	21,8	(2 338)
3 000 - 3 499	%	72,3	19,9	7,8	(5 039)	70,6	12,7	16,7	(5 038)	68,0	23,4	8,6	(4 755)	69,9	12,1	18,0	(4 770)
3 500 - 3 999	%	70,4	22,4	7,2	(3 278)	69,4	13,2	17,4	(3 275)	63,6	28,4	8,0	(3 268)	67,8	13,4	18,8	(3 269)
≥ 4 000	%	58,7	30,1	11,2	(884)	61,5	13,0	25,5	(883)	55,3	34,6	10,1	(851)	64,0	12,6	23,4	(851)
N									(12 744)								(12 080)

(1) Denominator: number of live births

Spon=spontaneous, Indu=Indecud, Cesar=cesarean, SVD=spontaneous vaginal delivery, IVD=instrumental vaginal delivery

Table 39: Gestational age and birth weight

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Gestational age (weeks) [1]					
22-27	0,4	0,1410	51	0,4	0,3 - 0,6
28-31	0,8		95	0,8	0,6 - 1,0
32	0,3		45	0,4	0,3 - 0,5
33	0,6		80	0,7	0,5 - 0,8
34	0,8		111	0,9	0,8 - 1,1
35	1,3		144	1,2	1,0 - 1,4
36	3,0		336	2,7	2,5 - 3,1
37	7,2		779	6,4	5,9 - 6,8
38	15,8		2 021	16,5	15,9 - 17,2
39	26,9		3 370	27,5	26,8 - 28,3
40	25,6		3 017	24,7	23,9 - 25,4
41	16,8		2 122	17,3	16,7 - 18,0
≥ 42	0,5		64	0,5	0,4 - 0,7
Preterm birth (gestational age < 37 weeks)	7,2	0,5856	862	7,0	6,6 - 7,5
	(12 751)		(12 235)		
Birth weight [1]					
< 999 g	0,4	0,0377	59	0,5	0,4 - 0,6
1 000 - 1 499	0,6		77	0,6	0,5 - 0,8
1 500 - 1 999	1,5		165	1,4	1,2 - 1,6
2 000 - 2 499	4,8		551	4,6	4,2 - 5,0
2 500 - 2 999	20,6		2 339	19,4	18,7 - 20,1
3 000 - 3 499	39,5		4 770	39,5	38,6 - 40,4
3 500 - 3 999	25,7		3 270	27,1	26,3 - 27,9
4 000 - 4 499	6,2		785	6,5	6,1 - 7,0
≥ 4 500	0,7		66	0,5	0,4 - 0,7
Mean ± standard deviation	3251,3 ± 550,9		3264,5 ± 552,9		
Birth weight < 2500 g	7,2	0,6391	852	7,1	6,6 - 7,5
	(12 756)		(12 082)		

(1) Denominator: number of live births

Table 40: Preterm birth and low birth weight

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Preterm birth (< 37 weeks) (1)					
Total	7,1 (12 728)	0,6807	853 (12 226)	7,0	6,6 - 7,5
Singletons	5,8 (12 308)	0,3476	650 (11 840)	5,5	5,1 - 5,9
Twins	46,4 (420)	0,0805	203 (386)	52,6	47,5 - 57,7
Birth weight < 2500 grams (1)					
Total	7,1 (12 732)	0,7353	843 (12 073)	7,0	6,6 - 7,5
Singletons	5,5 (12 314)	0,4525	619 (11 691)	5,3	4,9 - 5,7
Twins	53,6 (418)	0,1506	224 (382)	58,6	53,5 - 63,6
Small-for-gestational-age (< 10th percentile) (1,2)					
Total	11,6 (12 703)	0,1205	1 294 (11 815)	11,0	10,4 - 11,6
Singletons	10,8 (12 284)	0,1046	1 161 (11 440)	10,1	9,6 - 10,7
Twins	34,6 (419)	0,7997	133 (375)	35,5	30,6 - 40,5

(1) Denominator: number of live births, excluding the three triple births

(2) EPOPé curve, adjusted for gestational age and sex

Table 41: The newborn in the delivery room

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Sex [1]					
Male	52,0	0,8697	6 143	51,9	51,0 - 52,8
Female	48,0		5 695	48,1	47,2 - 49,0
	(12 745)		(11 838)		
Type of birth [1]					
Singletons	96,6	0,4454	11 888	96,7	96,4 - 97,1
Twins	3,3		390	3,2	2,9 - 3,5
Triplets	0,1		9	0,1	0,0 - 0,1
	(12 769)		(12 287)		
Height of the newborn [1]					
≤ 47 cm	19,7	0,9528	2 172	19,6	18,8 - 20,3
48-49	30,6		3 431	30,9	30,1 - 31,8
50-51	34,9		3 846	34,6	33,8 - 35,6
≥ 52	14,8		1 650	14,9	14,2 - 15,5
	(12 078)		(11 099)		
Mean	49,3 ± 2,4			49,4 ± 2,4	
Head circumference [1]					
≤ 32 cm	12,0	0,0136	1 238	10,8	10,2 - 11,4
33	18,1		1 995	17,4	16,7 - 18,1
34	26,6		3 095	27,0	26,2 - 27,8
35	24,1		2 857	24,9	24,1 - 25,7
≥ 36	19,1		2 289	19,9	19,2 - 20,7
	(12 235)		(11 474)		
Mean	34,2 ± 1,6			34,4 ± 1,6	
5-min Apgar score [1]					
≤ 7	2,0	0,0292	297	2,5	2,2 - 2,8
8-9	6,7		824	6,8	6,4 - 7,3
10	91,3		10 905	90,7	90,1 - 91,2
	(12 729)		(12 026)		

(1) Denominator: number of live births

Table 42: Specific management of the newborn [1]

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Umbilical cord blood pH [1]					
< 7,00	0,6	0,5759	75	0,7	0,5 - 0,9
7,00-7,15	8,9		1 002	9,2	8,7 - 9,8
> 7,15	90,5		9 824	90,1	89,5 - 90,7
	(11 074)		(10 901)		
Bacteriological (gastric) samples in the newborn [1,2]					
Oui	42,8	<,0001	1 222	10,3	9,7 - 10,8
Non	57,2		10 674	89,7	89,2 - 90,3
	(12 588)		(11 896)		
Resuscitation procedures performed:					
Ventilation [1]					
No	93,7	<,0001	10 955	92,2	91,7 - 92,7
Yes, mask ventilation	1,2		71	0,6	0,5 - 0,8
Yes, Néopuff	4,1		778	6,5	6,1 - 7,0
Yes, method unspecified	1,0		74	0,6	0,5 - 0,8
	(12 545)		(11 878)		
CPAP [1,3]					
Yes	1,8	<,0001	356	3,2	2,9 - 3,5
No	98,2		10 861	96,8	96,5 - 97,1
	(11 505)		(11 217)		
Intubation [1]					
Yes	1,0	0,1054	85	0,8	0,6 - 0,9
No	99,0		11 139	99,2	99,1 - 99,4
	(11 514)		(11 224)		
Intubation or CPAP before transfer to NICU or other neonatal unit [1,3]					
Yes	1,8	0,002	271	2,4	2,1 - 2,7
No	98,2		10 972	97,6	97,3 - 97,9
	(11 532)		(11 243)		

(1) Denominator: number of live births

(2) Different question wording (in 2016, bacteriological sampling including gastric, ear and anal swabs; in 2021, gastric swab)

(3) CPAP (Continuous Postive Airway Pressure)

Table 43: Transfer of the newborn

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Transfer of the newborn [1]					
No	90,0	0,0083	10 647	89,1	88,5 - 89,6
To NICU	2,4		359	3,0	2,7 - 3,3
Neonatal unit	4,2		544	4,5	4,2 - 4,9
Kangaroo care unit [2]	3,3		378	3,2	2,9 - 3,5
Other medical/surgical unit	0,1		28	0,2	0,2 - 0,3
	(12 749)		(11 956)		
Place of transfer [1]					
Same site	89,3	0,4787	1 139	88,4	86,1 - 89,8
Other hospital	10,7		149	11,6	10,2 - 13,9
	(1 135)		(1 288)		
Reason for transfer [1,3]					
Preterm birth or fetal growth restriction	53,7	0,1835	668	51,0	48,3 - 53,8
Respiratory distress	25,5	0,2408	361	27,6	25,2 - 30,1
Suspected infection	11,0	0,0015	96	7,3	6,0 - 8,9
Congenital anomaly	3,5	0,0006	86	6,6	5,3 - 8,1
Other	22,4	0,9194	291	22,2	20,0 - 24,6
	(1 192)		(1 309)		

(1) Denominator: number of live births

(2) Including kangaroo unit

(3) Two possible reasons for the same transfer

Table 44: Specific care of the term newborn [1]

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Umbilical cord blood pH [1]					
< 7,00	0,6	0,5889	69	0,7	0,5 - 0,9
7,00-7,15	9,0		948	9,3	8,8 - 9,9
> 7,15	90,4		9 116	90,0	89,4 - 90,5
	(10 272)		(10 133)		
5-min Apgar score [1]					
≤ 7	1,5	0,0068	221	2,0	1,7 - 2,3
8-9	5,8		676	6,0	5,6 - 6,5
10	92,7		10 306	92,0	91,5 - 92,5
	(11 812)		(11 203)		
Resuscitation procedures performed					
Ventilation [1]					
No	95,4	<,0001	10 433	94,4	93,9 - 94,8
Yes, mask ventilation	1,0		54	0,5	0,4 - 0,6
Yes, Néopuff	3,0		527	4,8	4,4 - 5,2
Yes, method unspecified	0,6		40	0,3	0,3 - 0,5
	(11 650)		(11 054)		
CPAP [1,3]					
Yes	1,1	<,0001	196	1,9	1,6 - 2,2
No	98,9		10 254	98,1	97,9 - 98,4
	(10 667)		(10 450)		
Intubation [1]					
Yes	0,2	0,5103	21	0,2	0,1 - 0,3
No	99,8		10 429	99,8	99,7 - 99,9
	(10 671)		(10 450)		
Intubation or CPAP before transfer to NICU or other neonatal unit [1,3]					
Yes	0,6	0,1663	79	0,8	0,6 - 0,9
No	99,4		10 383	99,2	99,1 - 99,4
	(10 683)		(10 462)		
Transfer of the newborn [1]					
No	94,5	0,0046	10 429	93,9	93,4 - 94,3
To NICU	0,6		113	1,0	0,8 - 1,2
Neonatal unit	2,4		305	2,7	2,4 - 3,1
Kangaroo care unit [2]	2,3		239	2,2	1,9 - 2,5
Other medical/surgical unit	0,1		23	0,2	0,1 - 0,3
	(11 815)		(11 109)		

(1) Denominator: number of live births

(2) Different question wording (in 2016, bacteriological sampling including gastric, ear and anal swabs; in 2021, gastric swab)

(3) CPAP (Continuous Postive Airway Pressure)

Table 45: Accompaniment to childbirth and skin-to-skin contact

(Live births in metropolitan France)

	2021		
	n	%	95 % IC
Presence of person at the time of birth [1]			
Yes, the partner	9 257	84,9	84,2 - 85,6
Yes, another person	412	3,8	3,4 - 4,2
No	1 236	11,3	10,8 - 11,9
	(10 905)		
If spontaneous delivery,			
Yes, the partner	7 756	89,5	88,8 - 90,1
Yes, another person	336	3,9	3,5 - 4,3
No	575	6,6	6,1 - 7,2
	(8 668)		
If scheduled cesarean			
Yes, the partner	593	76,5	73,4 - 79,5
Yes, another person	27	3,5	2,3 - 5,0
No	155	20,0	17,2 - 23,0
	(775)		
If emergency cesarean			
Yes, the partner	905	62,0	59,5 - 64,5
Yes, another person	49	3,4	2,5 - 4,4
No	505	34,6	32,2 - 37,1
	(1 459)		
Skin-to-skin contact after delivery [2]			
Yes, in the delivery room	7 628	78,8	74,5 - 76,1
Yes, in the operating room	315	3,3	2,9 - 3,6
Yes, in the recovery room	445	4,6	4,3 - 5,1
Yes, in the operating and recovery rooms	216	2,2	1,9 - 2,4
No skin-to-skin contact	1 071	11,1	14,0 - 15,3
	(9 675)		
If vaginal delivery, skin-to-skin contact [2]			
Yes	7 562	96,5	96,1 - 96,9
No	271	3,5	3,1 - 3,9
	(7 833)		
If cesarean, skin-to-skin contact [2]			
Oui	1 042	56,6	54,3 - 58,9
Non	800	43,4	41,2 - 45,7
	(1 842)		

(1) Denominator: number of women

(2) Denominator: number of children not transferred to NICU or neonatology unit

Table 46: Newborn feeding and sleeping arrangements

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Feeding choices of the newborn before birth [1]					
Yes, before pregnancy	-		6 682	62,3	61,4 - 63,3
Yes, during pregnancy	-		3 368	31,4	30,5 - 32,3
Yes, does not remenber the moment	-		83	0,8	0,6 - 1,0
No			586	5,5	5,0 - 5,9
			(10 719)		
Feeding method chosen before birth [1]					
Exclusive breastfeeding	-		6 675	64,8	63,8 - 65,7
Mixed breastfeeding	-		878	8,5	8,0 - 9,1
Formula for infants	-		2 753	26,7	25,9 - 27,6
			(10 306)		
If breastfeeding, expected duration [1]					
< 1 month	-		120	1,7	1,4 - 2,0
1 to 3 months	-		1 433	20,2	19,2 - 21,1
4 to 6 months	-		1 611	22,7	21,7 - 23,7
More than 6 months	-		957	13,5	12,7 - 14,3
As long as possible	-		2 043	28,7	27,7 - 29,8
No expected duration	-		941	13,2	12,5 - 14,1
			(7 105)		
Attempt to put the baby to the mother's breast in the first two hours of life [2]					
Yes	65,7	<,0001	6 728	69,4	68,5 70,3
No	34,3		2 969	30,6	29,7 - 31,6
	(10 750)		(9 697)		
Feeding method [2]					
Exclusive breastfeeding	54,6	0,0002	5 494	56,3	55,3 - 57,3
Mixed breastfeeding	12,5		1 312	13,4	12,8 - 14,1
Formula for infants	32,9		2 955	30,3	29,4 - 31,2
	(10 709)		(9 761)		
Advice given about sleeping position for the newborn [2,3]					
Yes, during pregnancy	-	-	1 599	16,4	15,7 - 17,3
Yes, after delivery	43,4		1 773	18,2	17,5 - 19,0
Yes, both	-		1 754	18,0	17,3 - 18,8
No	56,6		4 243	43,6	42,6 - 44,7
Does not know	-		357	3,7	3,3 - 4,0
	(10 679)		(9 726)		

(1) Denominator: number of women

(2) Denominator: number of children not transferred to NICU or neonatology unit

(3) Different question wording in 2016: advice given since delivery and yes/no response

Table 47: Maternal postpartum hospitalization

(Live births in metropolitan France)

	2016		2021		
	%	p	n	%	95 % IC
Duration of hospitalisation in the maternity ward after giving birth [1]					
≤ 2 days [2]	4,5	<,0001	1 481	12,4	11,8 - 13,0
3	37,1		5 209	43,5	42,6 - 44,4
4	36,1		3 355	28,0	27,2 - 28,8
5	13,6		1 119	9,3	8,8 - 9,9
≥ 6	8,7		816	6,8	6,4 - 7,3
	(12 486)		(11 980)		
Mean ± standard deviation	4,0 ± 1,6			3,7 ± 1,6	
Duration of hospitalisation, if vaginal delivery and child not transferred for medical reason [1]					
≤ 2 days	5,0	<,0001	1 308	15,2	14,5 - 16,0
3	47,0		4 593	53,5	52,4 - 54,5
4	38,2		2 037	23,7	22,8 - 24,6
5	6,8		427	5,0	4,5 - 5,5
≥ 6	3,0		224	2,6	2,3 - 3,0
	(9 322)		(8 589)		
Mean ± standard deviation	3,6 ± 1,0			3,3 ± 1,0	
Duration of hospitalisation, if cesarean and child not transferred for medical reason [1]					
≤ 2 days	0,3	<,0001	22	1,1	0,7 - 1,7
3	5,5		325	16,6	15,0 - 18,3
4	35,5		993	50,6	48,4 - 52,9
5	41,9		470	24,0	22,1 - 25,9
≥ 6	16,8		151	7,7	6,6 - 9,0
	(1 982)		(1 961)		
Mean ± standard deviation	4,9 ± 1,3			4,3 ± 1,1	

(1) Denominator: number of women

(2) Possible mother-infant reconciliation on D0 or D1 if the newborn is transferred to another institution

Table 48: Characteristics of mothers and prenatal care in single and twin pregnancies

(Live births in metropolitan France)

	Pregnancy				
	Singletons		Twins		
	n	%	n	%	p
Age of the woman ≥ 35 years (1)	2 900	24,4	68	34,7	0,0009
	(11 883)		(196)		
Mean ± standard deviation		30,8 ± 5,3		32,4 ± 5,3	<,0001
Parity (1)					
0	4 895	41,4	77	39,5	0,1132
1	4 158	35,1	60	30,8	
2 or more	2 783	23,5	58	29,7	
	(11 836)		(195)		
Psychological condition during pregnancy (1)					
Good	6 797	63,2	106	63,5	0,9149
Fairly good	2 628	24,4	39	23,4	
Fairly bad, bad	1 325	12,3	22	13,2	
	(10 750)		(167)		
At least one visit with the team managing the delivery (1)	10 178	95,0	151	89,9	0,0028
	(10 715)		(168)		
TPD with hospitalisation (1,2)	503	4,3	66	33,8	<,0001
	(11 803)		(195)		
Corticosteroid treatment (1)	500	4,2	77	40,3	<,0001
	(11 778)		(191)		

(1) Denominator: number of women

Table 49: Characteristics of childbirth in single and twin pregnancies

(Live births in metropolitan France)

	Pregnancy				
	Singletons		Twins		
	n	%	n	%	p
Status of the maternity unit [1,2]					
University or regional hospital centre	2 413	20,3	81	41,1	<,0001
Community hospital centre	5 972	50,3	82	41,6	
ESPIC [3]	917	7,7	13	6,6	
Private for-profit establishment	2 577	21,7	21	10,7	
	(11 879)		(197)		
Level of care of the maternity unit [1,2]					
Level I	2 418	20,4	16	8,1	<,0001
Level II A	3 448	29,0	42	21,3	
Level II B	2 880	24,2	43	21,8	
Level III	3 133	26,4	96	48,8	
	(11 879)		(197)		
Mode of labour onset [1]					
Spontaneous labour	7 630	64,4	56	28,7	<,0001
Induced labour	3 044	25,7	67	34,4	
Cesarean before labour	1 169	9,9	72	36,9	
	(11 843)		(195)		
Mode of delivery [4]					
Spontaneous vaginal delivery	7 987	67,2	139	35,6	<,0001
Instrumental vaginal delivery	1 505	12,7	24	6,2	
Cesarean	2 393	20,1	227	58,2	
	(11 885)		(390)		

(1) Denominator: number of women

(2) Women who gave birth in birthing centers not included

(3) Private non-profit hospital

(4) Denominator: number of live births

Table 50: Characteristics of childbirth in single and twin pregnancies

(Live births in metropolitan France)

	Childbirth				
	Singletons		Twins		
	n	%	n	%	p
Gestationnal age [1]					
≤ 31 weeks	109	0,9	31	8,0	<,0001
32-33	86	0,7	39	10,1	
34	70	0,6	38	9,9	
35	110	0,9	34	8,8	
36	275	2,3	61	15,8	
37	689	5,8	90	23,3	
38	1 946	16,5	75	19,4	
≥ 39	8 555	72,3	18	4,7	
	(11 840)		(386)		
Birth weight [1]					
< 1 000 g	43	0,4	13	3,4	<,0001
1 000 - 1 499	55	0,5	21	5,5	
1 500 - 1 999	106	0,9	56	14,6	
2 000 - 2 499	415	3,5	134	35,1	
2 500 - 2 999	2 216	19,0	123	32,2	
3 000 - 3 499	4 738	40,5	35	9,2	
≥ 3 500	4 118	35,2			
	(11 691)		(382)		
Transfer of the child [1]					
No	10 498	90,8	149	39,2	<,0001
Yes, to NICU	276	2,4	74	19,5	
Yes, to another unit	793	6,8	157	41,3	
	(11 567)		(380)		

(1) Denominator: number of live births

Table 51: Regional comparisons, women aged 35 and over
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	12 082	24,6	23,8 - 25,3	
Auvergne-Rhône-Alpes	1 521	23,4	21,3 - 25,6	0,2974
Bourgogne-Franche-Comté	468	23,3	19,5 - 27,4	0,5549
Bretagne	552	23,2	19,7 - 26,9	0,4888
Centre-Val de Loire	437	22,0	18,2 - 26,1	0,2216
Corse	48	25,0	13,6 - 39,6	1,0000
Grand Est	878	20,6	18,0 - 23,4	0,0060
Hauts-de-France	1 063	20,6	18,2 - 23,2	0,0024
Ile-de-France	2 965	30,0	28,4 - 31,7	<,0001
Normandie	559	16,3	13,3 - 19,6	<,0001
Nouvelle-Aquitaine	960	23,2	20,6 - 26,0	0,3488
Occitanie	1 046	25,3	22,7 - 28,1	0,5656
Provence-Alpes-Côte d'Azur	886	27,5	24,6 - 30,6	0,0424
Pays de la Loire	699	22,2	19,1 - 25,4	0,1472
Overseas departments and regions [3,4]	660	22,9	19,7 - 26,3	0,3423

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 52: Regional comparisons, women with at least one year post secondary studies

(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 940	59,4	58,5 - 60,3	
Auvergne-Rhône-Alpes	1 401	62,0	59,4 - 64,5	0,0534
Bourgogne-Franche-Comté	428	53,0	48,2 - 57,8	0,0078
Bretagne	504	58,9	54,5 - 63,3	0,8207
Centre-Val de Loire	412	55,6	50,6 - 60,4	0,1198
Corse	41	48,8	32,9 - 64,9	0,2028
Grand Est	815	53,7	50,2 - 57,2	0,0010
Hauts-de-France	934	52,6	49,3 - 55,8	<,0001
Ile-de-France	2 637	67,3	65,5 - 69,1	<,0001
Normandie	530	48,1	43,8 - 52,5	<,0001
Nouvelle-Aquitaine	890	61,9	58,6 - 65,1	0,1332
Occitanie	917	53,2	49,9 - 56,5	<,0001
Provence-Alpes-Côte d'Azur	783	59,5	56,0 - 63,0	0,9709
Pays de la Loire	648	61,0	57,1 - 64,7	0,4473
Overseas departments and regions [3,4]	587	31,9	28,1 - 35,8	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 53: Regional comparisons, women receiving unemployment allocations, and/or active solidarity income (RSA) by the household
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 926	23,2	22,4 - 24,0	
Auvergne-Rhône-Alpes	1 402	20,3	18,2 - 22,5	0,0095
Bourgogne-Franche-Comté	425	23,8	19,8 - 28,1	0,7743
Bretagne	504	21,8	18,3 - 25,7	0,4929
Centre-Val de Loire	409	23,7	19,7 - 28,1	0,8149
Corse [5]	41	-		
Grand Est	813	26,0	23,0 - 29,1	0,0677
Hauts-de-France	934	29,6	26,6 - 32,6	<,0001
Ile-de-France	2 634	17,5	16,0 - 19,0	<,0001
Normandie	528	25,4	21,7 - 29,3	0,2568
Nouvelle-Aquitaine	888	24,9	22,1 - 27,9	0,2491
Occitanie	916	30,2	27,3 - 33,3	<,0001
Provence-Alpes-Côte d'Azur	784	26,3	23,2 - 29,5	0,0468
Pays de la Loire	648	23,5	20,2 - 26,9	0,8890
Overseas departments and regions [3,4]	583	36,0	32,1 - 40,1	<,0001

(1) Denominator: number of women
(2) Binomial test comparing each region to metropolitan France
(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion
(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion
(5) Too small sample size

Table 54: Regional comparisons, women with a body mass index (BMI) ≥ 30

(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 780	14,4	13,8 - 15,1	
Auvergne-Rhône-Alpes	1 390	12,8	11,1 - 14,7	0,0929
Bourgogne-Franche-Comté	423	16,1	12,7 - 19,9	0,3325
Bretagne	497	15,5	12,4 - 19,0	0,4827
Centre-Val de Loire	405	15,1	11,7 - 18,9	0,7234
Corse [5]	40	-		
Grand Est	806	16,9	14,3 - 19,6	0,0505
Hauts-de-France	928	17,2	14,9 - 19,8	0,0171
Ile-de-France	2 569	13,5	12,2 - 14,9	0,1964
Normandie	525	17,3	14,2 - 20,8	0,0621
Nouvelle-Aquitaine	879	13,5	11,3 - 16,0	0,5014
Occitanie	905	13,5	11,3 - 15,9	0,4490
Provence-Alpes-Côte d'Azur	771	11,7	9,5 - 14,1	0,0311
Pays de la Loire	642	15,7	13,0 - 18,8	0,3396
Overseas departments and regions [3,4]	437	22,4	18,6 - 26,6	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too small sampling size

Table 55: Regional comparisons, tobacco use in the third trimester of pregnancy

(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 922	12,2	11,6 - 12,8	
Auvergne-Rhône-Alpes	1 402	12,8	11,1 - 14,6	0,5136
Bourgogne-Franche-Comté	428	15,7	12,3 - 19,4	0,0320
Bretagne	504	15,9	12,8 - 19,4	0,0141
Centre-Val de Loire	412	16,3	12,8 - 20,2	0,0157
Corse [5]	40	-		
Grand Est	812	14,0	11,7 - 16,6	0,1077
Hauts-de-France	934	17,1	14,8 - 19,7	<,0001
Ile-de-France	2 631	5,9	5,1 - 6,9	<,0001
Normandie	530	15,1	12,1 - 18,4	0,0461
Nouvelle-Aquitaine	886	13,5	11,4 - 16,0	0,2178
Occitanie	913	15,9	13,6 - 18,4	0,0010
Provence-Alpes-Côte d'Azur	782	12,1	9,9 - 14,6	1,0000
Pays de la Loire	648	9,6	7,4 - 12,1	0,0411
Overseas departments and regions [3,4]	586	6,0	4,2 - 8,2	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too small sample size

Table 56: Regional comparisons, folic acid use before pregnancy
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 550	28,3	27,4 - 29,1	
Auvergne-Rhône-Alpes	1 348	27,6	25,2 - 30,1	0,6072
Bourgogne-Franche-Comté	418	27,0	22,8 - 31,6	0,6250
Bretagne	484	33,9	29,7 - 38,3	0,0074
Centre-Val de Loire	403	27,8	23,5 - 32,4	0,8683
Corse	39	25,6	13,0 - 42,1	0,8592
Grand Est	788	27,9	24,8 - 31,2	0,8433
Hauts-de-France	902	22,6	19,9 - 25,5	0,0001
Ile-de-France	2 537	28,0	26,3 - 29,8	0,8084
Normandie	501	30,3	26,3 - 34,6	0,2980
Nouvelle-Aquitaine	864	27,8	24,8 - 30,9	0,7626
Occitanie	864	28,4	25,4 - 31,5	0,9699
Provence-Alpes-Côte d'Azur	771	28,0	24,9 - 31,3	0,9045
Pays de la Loire	631	35,3	31,6 - 39,2	0,0001
Overseas departments and regions [3,4]	550	10,0	7,6 - 12,8	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 57: Regional comparisons, influenza vaccination
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 838	30,4	29,6 - 31,3	
Auvergne-Rhône-Alpes	1 393	32,2	29,7 - 34,7	0,1623
Bourgogne-Franche-Comté	425	24,9	20,9 - 29,3	0,0132
Bretagne	500	40,6	36,3 - 45,0	<,0001
Centre-Val de Loire	412	27,4	23,2 - 32,0	0,1988
Corse [5]	39	-		
Grand Est	808	28,2	25,1 - 31,5	0,1809
Hauts-de-France	930	35,1	32,0 - 38,2	0,0024
Ile-de-France	2 598	30,6	28,9 - 32,4	0,8146
Normandie	525	33,0	28,9 - 37,2	0,2175
Nouvelle-Aquitaine	877	33,4	30,3 - 36,6	0,0564
Occitanie	910	21,2	18,6 - 24,0	<,0001
Provence-Alpes-Côte d'Azur	774	20,2	17,4 - 23,2	<,0001
Pays de la Loire	647	39,7	36,0 - 43,6	<,0001
Overseas departments and regions [3,4]	581	4,5	2,8 - 6,5	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too small sampling size

Table 58: Regional comparisons, conducting an early prenatal interview

(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	10 925	36,5	35,6 - 37,4	
Auvergne-Rhône-Alpes	1 402	36,5	34,0 - 39,1	0,9779
Bourgogne-Franche-Comté	428	42,8	38,0 - 47,6	0,0077
Bretagne	504	44,8	40,4 - 49,3	0,0001
Centre-Val de Loire	413	35,6	31,0 - 40,4	0,7208
Corse	40	37,5	22,7 - 54,2	0,8712
Grand Est	814	33,0	29,8 - 36,4	0,0452
Hauts-de-France	934	37,2	34,0 - 40,3	0,6834
Ile-de-France	2 628	28,7	27,0 - 30,5	<,0001
Normandie	530	48,1	43,8 - 52,5	<,0001
Nouvelle-Aquitaine	888	50,6	47,2 - 53,9	<,0001
Occitanie	912	34,4	31,3 - 37,6	0,2033
Provence-Alpes-Côte d'Azur	784	35,1	31,7 - 38,5	0,4360
Pays de la Loire	648	36,9	33,2 - 40,7	0,8384
Overseas departments and regions [3,4]	587	31,9	28,1 - 35,8	0,0255

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 59: Regional comparisons, induction of labour
(Live births)

	Effectifs	%	95% CI	p [2)]
Metropolitan France [(1)]	12 041	25,8	25,1 - 26,6	
Auvergne-Rhône-Alpes	1 515	20,7	18,7 - 22,9	<,0001
Bourgogne-Franche-Comté	468	23,3	19,5 - 27,4	0,2246
Bretagne	549	26,2	22,6 - 30,1	0,8075
Centre-Val de Loire	437	26,1	22,0 - 30,5	0,9129
Corse	48	27,1	15,3 - 41,8	0,8691
Grand Est	874	26,3	23,4 - 29,4	0,7280
Hauts-de-France	1 064	25,3	22,7 - 28,0	0,7261
Ile-de-France	2 950	29,1	27,5 - 30,8	<,0001
Normandie	557	26,8	23,1 - 30,6	0,5947
Nouvelle-Aquitaine	957	25,4	22,7 - 28,3	0,7960
Occitanie	1 044	24,6	22,0 - 27,3	0,3961
Provence-Alpes-Côte d'Azur	882	25,2	22,3 - 28,2	0,7004
Pays de la Loire	696	27,0	23,7 - 30,5	0,4617
Overseas departments and regions [(3,4)]	657	21,9	18,8 - 25,3	0,0229

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 60: Regional comparisons, cesarean delivery
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	12 285	21,4	20,7 - 22,1	
Auvergne-Rhône-Alpes	1 541	19,3	17,3 - 21,3	0,0435
Bourgogne-Franche-Comté	473	19,2	15,8 - 23,1	0,2626
Bretagne	558	19,4	16,2 - 22,9	0,2562
Centre-Val de Loire	443	20,8	17,1 - 24,8	0,7724
Corse	51	23,5	12,8 - 37,5	0,7326
Grand Est	899	21,1	18,5 - 23,9	0,8709
Hauts-de-France	1 074	19,8	17,5 - 22,3	0,2196
Ile-de-France	3 017	23,5	22,0 - 25,1	0,0048
Normandie	567	18,2	15,1 - 21,6	0,0651
Nouvelle-Aquitaine	983	19,0	16,6 - 21,6	0,0735
Occitanie	1 069	21,2	18,8 - 23,8	0,9405
Provence-Alpes-Côte d'Azur	900	27,9	25,0 - 30,9	<,0001
Pays de la Loire	710	20,8	17,9 - 24,0	0,7488
Overseas departments and regions [3,4]	669	20,2	17,2 - 23,4	0,4795

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 61: Regional comparisons, episiotomy with vaginal delivery
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	9 467	8,3	7,7 - 8,8	
Auvergne-Rhône-Alpes	1 224	6,9	5,6 - 8,5	0,0873
Bourgogne-Franche-Comté	378	4,0	2,2 - 6,4	0,0014
Bretagne	444	4,3	2,6 - 6,6	0,0014
Centre-Val de Loire	346	10,4	7,3 - 14,1	0,1715
Corse [5]	37	-		
Grand Est	690	5,7	4,0 - 7,6	0,0105
Hauts-de-France	846	6,7	5,1 - 8,6	0,1051
Ile-de-France	2 261	11,3	10,0 - 12,6	<,0001
Normandie	452	9,3	6,8 - 12,3	0,4427
Nouvelle-Aquitaine	777	8,9	7,0 - 11,1	0,5584
Occitanie	823	9,2	7,3 - 11,4	0,3431
Provence-Alpes-Côte d'Azur	639	6,4	4,6 - 8,6	0,0854
Pays de la Loire	550	8,9	6,7 - 11,6	0,5887
Overseas departments and regions [3,4]	527	3,8	2,3 - 5,8	<,0001

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too small sampling size

Table 62: Regional comparisons, prematurity (< 37 weeks)
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	12 235	7,0	6,6 - 7,5	
Auvergne-Rhône-Alpes	1 535	6,3	5,1 - 7,6	0,2512
Bourgogne-Franche-Comté	473	7,4	5,2 - 10,1	0,7197
Bretagne	555	5,6	3,8 - 7,8	0,2126
Centre-Val de Loire	443	7,7	5,4 - 10,6	0,5776
Corse [5]	51	-		
Grand Est	895	7,2	5,5 - 9,0	0,8960
Hauts-de-France	1 075	6,9	5,4 - 8,6	0,9051
Ile-de-France	2 996	7,5	6,6 - 8,5	0,3535
Normandie	565	5,7	3,9 - 7,9	0,2176
Nouvelle-Aquitaine	978	7,6	6,0 - 9,4	0,5319
Occitanie	1 066	6,2	4,8 - 7,8	0,3087
Provence-Alpes-Côte d'Azur	896	8,5	6,7 - 10,5	0,1023
Pays de la Loire	707	7,2	5,4 - 9,4	0,8257
Overseas departments and regions [3,4]	666	9,5	7,3 - 11,9	0,0187

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too samll sampling size

Table 63: Regional comparisons, birth weight < 2500 g
(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	12 082	7,0	6,6 - 7,5	
Auvergne-Rhône-Alpes	1 517	7,1	5,8 - 8,5	1,0000
Bourgogne-Franche-Comté	471	7,9	5,6 - 10,7	0,4715
Bretagne	544	6,3	4,4 - 8,6	0,5571
Centre-Val de Loire	440	8,2	5,8 - 11,1	0,3510
Corse [5]	51	-		
Grand Est	887	7,2	5,6 - 9,1	0,8439
Hauts-de-France	1 058	6,7	5,3 - 8,4	0,7186
Ile-de-France	2 960	6,6	5,7 - 7,5	0,3146
Normandie	562	6,9	5,0 - 9,4	1,0000
Nouvelle-Aquitaine	971	7,9	6,3 - 9,8	0,2862
Occitanie	1 053	7,5	6,0 - 9,3	0,5472
Provence-Alpes-Côte d'Azur	877	7,2	5,6 - 9,1	0,8432
Pays de la Loire	691	6,8	5,0 - 8,9	0,8818
Overseas departments and regions [3,4]	657	10,0	7,9 - 12,6	0,0046

(1) Denominator: number of women

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

(5) Too small sampling size

Table 64: Regional comparisons, mixed or exclusive breastfeeding at the maternity ward

(Live births)

	Effectifs	%	95% CI	p [2]
Metropolitan France [1]	9 761	69,7	68,8 - 70,6	
Auvergne-Rhône-Alpes	1 273	72,2	69,6 - 74,6	0,0585
Bourgogne-Franche-Comté	363	67,5	62,4 - 72,3	0,3608
Bretagne	434	62,7	57,9 - 67,2	0,0017
Centre-Val de Loire	363	64,5	59,3 - 69,4	0,0300
Corse	37	64,9	47,5 - 79,8	0,5914
Grand Est	727	66,2	62,6 - 69,6	0,0394
Hauts-de-France	849	57,8	54,4 - 61,2	<,0001
Ile-de-France	2 317	81,2	79,5 - 82,7	<,0001
Normandie	469	58,4	53,8 - 62,9	<,0001
Nouvelle-Aquitaine	810	68,1	64,9 - 71,3	0,3390
Occitanie	840	67,5	64,2 - 70,7	0,1647
Provence-Alpes-Côte d'Azur	704	73,0	69,6 - 76,3	0,0592
Pays de la Loire	575	61,2	57,1 - 65,2	<,0001
Overseas departments and regions [3,4]	485	89,9	86,9 - 92,4	<,0001

(1) Denominator: number of live births among non-transferred children

(2) Binomial test comparing each region to metropolitan France

(3) Guadeloupe, Saint-Martin, French Guyana, Martinique, Mayotte, La Réunion

(4) Consult the reports of the ENP extensions carried out in Guadeloupe, Saint-Martin, Martinique, Mayotte and La Réunion

Table 65: Participation in the follow-up at 2 months

(Live births in metropolitan France)

	FQ [1]		IQ		QNR		Refusal		
	n=6720[2]	%	n=674[2]	%	n=2513[2]	%	n=1046[2]	%	p
Internet procurement [2]	4 801	71,4	579	85,9					
	(6 720)		(674)						
Age of the infant [2]									
51-60 days	3 249	48,3	306	45,4					
61-74	2 500	37,2	226	33,5					
≥ 75	971	14,5	142	21,1					
	(6 720)		(674)						
Age of the woman [2]									
15-24 years	562	8,4	94	14,0	380	15,1	173	16,6	<,0001
25-29	1 850	27,5	218	32,3	730	29,1	283	27,1	
30-39	3 949	58,8	337	50,0	1 260	50,1	531	50,8	
≥40	359	5,3	25	3,7	143	5,7	58	5,5	
	(6 720)		(674)		(2 513)		(1 045)		
French nationality [2]	5 944	88,5	575	85,3	1 929	76,9	759	72,6	<,0001
	(6 715)		(674)		(2 510)		(1 045)		
Level > Bachelor's degree [2]	4 522	67,3	347	51,5	1 176	46,9	452	43,5	<,0001
	(6 715)		(674)		(2 506)		(1 040)		
Parity [2]									
0	2 994	44,6	261	38,8	931	37,3	361	35,4	<,0001
1	2 438	36,3	247	36,8	837	33,5	335	32,9	
≥ 2	1 278	19,0	164	24,4	731	29,2	323	31,7	
	(6 710)		(672)		(2 499)		(1 019)		
Cohabiting with partner [2]	6 458	96,2	632	93,8	2 341	93,2	951	91,2	<,0001
	(6 713)		(674)		(2 513)		(1 043)		
Singletons [2]	6 632	98,7	658	97,6	2 459	97,9	1 033	98,8	0,0074
	(6 720)		(674)		(2 513)		(1 046)		
Sex [3]									
Male	3 476	52,3	344	51,0	1 255	50,6	518	53,3	0,3774
Female	3 173	47,7	331	49,0	1 226	49,4	454	46,7	
	(6 649)		(675)		(2 481)		(972)		
Prematurity [3]	419	6,2	52	7,5	204	8,0	57	5,5	0,0048
	(6 795)		(690)		(2 554)		(1 032)		
Weight <2500g [3]	413	6,1	51	7,4	192	7,6	60	6,1	0,0555
	(6 763)		(689)		(2 542)		(991)		
Transfer at birth [3]	631	9,4	73	10,7	282	11,2	98	10,0	0,0718
	(6 693)		(681)		(2 513)		(976)		

(1) FQ = full questionnaire, IQ = incomplete questionnaire, QNR = agreement at birth but no participation, refusal = refusal of the follow-up at 2 months from birth. Five women participated in the 2-month follow-up, but were excluded from the analyses because their children did not return home when the questionnaire was completed

(2) Denominator: number of women

(3) Denominator: number of live births

Table 66: Characteristics of the partner
(Live births in metropolitain France)

	% [1]	95 % CI
Partner [2]		
Yes	94,1	93,3 - 94,8
No	5,9	5,2 - 6,7
	(7 287)	
Age of partner [2]		
15-19 years	0,3	0,2 - 0,5
20-29	23,0	22,0 - 24,1
30-39	59,9	58,6 - 61,2
≥40	16,8	15,7 - 17,9
	(6 939)	
Mean ± SEM	33,8 ± 0,09	
Nationality [2]		
French	85,2	84,1 - 86,3
Other european countries	3,6	3,1 - 4,3
North Africa	4,8	4,2 - 5,5
Other african countries	5,0	4,3 - 5,8
Other nationalities	1,3	1,0 - 1,7
	(6 943)	
Country of birth [2]		
France	79,9	78,6 - 81,0
Other european countries	3,8	3,2 - 4,5
North Africa	7,6	6,9 - 8,4
Other african countries	6,7	5,9 - 7,5
Other nationalities	2,0	1,6 - 2,5
	(6 921)	
Partner's occupation [2,3,4]		
Farmers	1,5	1,2 - 1,9
Artisan, small business owner	9,4	8,6 - 10,2
Professional, manager, engineer	21,7	20,7 - 22,7
Intermediate	19,8	18,7 - 21,0
Employee	12,2	11,4 - 13,1
Manuel worker	32,6	31,2 - 33,9
No occupation	2,8	2,3 - 3,4
	(6 102)	
Situation at 2 months [2]		
Employed [5]	89,0	88,1 - 89,9
Unemployed	8,3	7,5 - 9,1
Student	0,8	0,6 - 1,1
Other situation	1,9	1,5 - 2,3
	(6 918)	
Paid leave (paternity, annual or parental) taken after birth [2]		
Yes yet	60,2	58,9 - 61,5
No yet, but planned	12,9	12,1 - 13,8
Does not take any	26,9	25,7 - 28,1
	(6 905)	

(1) Weighted percentages
(2) Denominator: number of women
(3) Automated coding of occupation by SICORE (INSEE) software
(4) This is the current or last occupation
(5) Included partial unemployment due to the health crisis

Table 67: Experience of pregnancy abd childbirth

(Live births in metropolitan France)

	% [1]	95 % CI
Experience of pregnancy [2]		
Pleasant period	32,9	31,7 - 34,1
Fairly pleasant period	51,6	50,3 - 52,9
Difficult period	11,6	10,8 - 12,6
A very difficult period	3,9	3,4 - 4,5
	(7 384)	
Sources of difficulties [2]		
Feeling of loneliness	27,5	26,1 - 29,0
Feeling of long days	41,6	40,0 - 43,1
Lack of advice/guidance from professionals	12,0	11,0 - 13,1
Feeling of intense fatigue	72,5	71,1 - 73,8
Stress related to childbirth or the unborn child	56,8	55,2 - 58,3
Nausea, vomiting or back pain	70,6	69,2 - 72,0
	(4 930)	
Satisfaction with medical care and pregnancy follow-up [2]		
Very satisfied	61,8	60,5 - 63,0
Fairly satisfied	34,6	33,4 - 35,8
Fairly unsatisfied	2,9	2,4 - 3,4
Very unsatisfied	0,7	0,5 - 1,0
	(7 362)	
Accompaniment by professionals in the birth room or operating room [2]		
Very present	68,0	66,8 - 69,2
Fairly present	26,8	25,7 - 27,9
Not very present	4,5	4,0 - 5,0
Unavailable	0,7	0,5 - 0,9
	(7 323)	
Satisfaction with care in the delivery room [2]		
Very satisfied	76,1	75,0 - 77,2
Fairly satisfied	20,1	19,1 - 21,1
Fairly dissatisfied	2,6	2,2 - 3,0
Very dissatisfied	1,3	1,0 - 1,6
	(7 327)	
Recollection of childbirth [2]		
Very good	53,3	52,0 - 54,6
Fairly good	35,0	33,8 - 36,2
Fairly bad	8,7	8,0 - 9,4
Very bad	3,0	2,6 - 3,5
	(7 300)	
Recommendation to give birth at the same place to a relative [2]		
Yes	89,9	89,0 - 90,7
No	5,9	5,2 - 6,6
No opinion	4,2	3,6 - 4,9
	(7 304)	

(1) Weighted percentages

(2) Denominator: number of women

(3) Denominator: number of non-transferred children

Table 68: Stay in maternity unit
(Live births in metropolitan France)

	% [1]	95 % CI
Newborn entrusted to the nursery at least once [2]		
Yes	30,1	28,8 - 31,3
No	69,9	68,7 - 71,2
	(6 586)	
Accompanying by professionals during the maternity stay [3]		
Very present	53,0	51,8 - 54,3
Fairly present	38,6	37,3 - 39,8
Bavely present	7,3	6,7 - 8,0
Unavailable	1,1	0,8 - 1,4
	(7 306)	
Satisfaction with methods used to relieve pain after childbirth [3]		
Very satisfied	49,8	48,5 - 51,1
Fairly satisfied	35,6	34,4 - 36,8
Fairly dissatisfied	6,5	5,9 - 7,2
Very dissatisfied	2,0	1,6 - 2,4
No pain	6,1	5,5 - 6,7
	(7 297)	
Length of stay in the maternity unit [3]		
Too short	6,9	6,2 - 7,7
Appropriate	74,3	73,1 - 75,5
Too long	18,8	17,7 - 19,8
	(7 295)	

(1) Weighted percentages
(2) Denominator: number of non-transferred children
(3) Denominator: number of women

Table 69: Inappropriate behaviours during pregnancy or childbirth

(Live births in metropolitan France)

	% [1]	95 % IC
Inappropriate comments from health professionals [2]		
Never	70,2	69,0 - 71,3
Very rarely	17,7	16,8 - 18,7
Sometimes	10,9	10,1 - 11,6
Often	1,2	0,9 - 1,6
	(7 345)	
Inappropriate procedures by health professionals [2]		
Never	83,0	82,0 - 84,0
Very rarely	10,3	9,6 - 11,1
Sometimes	6,1	5,5 - 6,8
Often	0,6	0,4 - 0,8
	(7 341)	
Inappropriate attitudes of health professionals [2]		
Never	74,8	73,7 - 75,9
Very rarely	14,6	13,8 - 15,5
Sometimes	9,6	8,8 - 10,3
Often	1,0	0,7 - 1,3
	(7 348)	
If inappropriate words or actions or attitudes, when they occurred [2]		
Antenatal care visits	36,7	34,7 - 38,6
Ultrasounds screening	19,6	18,0 - 21,3
Consultations in the emergency room	18,6	17,0 - 20,2
During the placement of anesthesia	13,9	12,5 - 15,4
Childbirth	25,1	23,3 - 26,9
Maternity ward stay	47,2	45,2 - 49,2
Other moment	4,5	3,7 - 5,4
	(2 872)	

(1) Weighted percentages

(2) Denominator: number of women

Table 70: Agreement to provide care

(Live births in metropolitan France)

	% [1]	95 % IC
Permission before performing a vaginal exam [1]		
Never	4,2	3,7 - 4,8
Yes, sometimes	11,0	10,1 - 11,9
Yes, systematically	78,0	76,9 - 79,1
No vaginal exam	4,7	4,2 - 5,2
Does not remember	2,1	1,7 - 2,5
	(7 339)	
Administration of artificial oxytocin by infusion during delivery [2]		
Yes	30,6	29,4 - 31,8
No	55,4	54,1 - 56,7
Does not know	14,0	13,1 - 15,0
	(7 331)	
If yes, consent requested to start the product		
Yes	70,9	68,8 - 72,9
No	19,9	18,1 - 21,7
Does not know	9,2	8,0 - 10,6
	(2 264)	
Episiotomy [2]		
Yes	9,6	8,8 - 10,4
No	88,0	87,1 - 88,9
Does not know	2,4	1,9 - 3,0
	(7 337)	
If yes, consent requested to carry it out		
Yes	40,9	36,7 - 45,3
No	51,8	47,4 - 56,1
Does not know	7,3	5,3 - 9,7
	(672)	
Unscheduled or emergency cesarean section [2]		
Yes	15,4	14,5 - 16,3
No	84,6	83,7 - 85,5
Does not know	0,0	0,0 - 0,2
	(7 341)	
If yes, consent requested to carry it out		
Yes	59,5	56,2 - 62,7
No	34,5	31,4 - 37,7
Does not know	6,0	4,7 - 7,7
	(1 099)	

(1) Weighted percentages

(2) Denominator: number of women

Table 71: Health litteracy during delivery and stay in maternity unit [1]

(Live births in metropolitan France)

	% [2]	95 % IC
Have good discussions about your health… [2]		
Cannot do or always difficult	0,6	0,4 - 0,8
Usually difficult	2,4	1,9 - 2,8
Sometimes difficult	9,0	8,3 - 9,9
Usually easy	44,0	42,8 - 45,3
Always easy	44,0	42,7 - 45,3
Discuss things with healthcare providers… [2]		
Cannot do or always difficult	0,8	0,5 - 1,2
Usually difficult	2,5	2,1 - 3,0
Sometimes difficult	11,0	10,2 - 11,9
Usually easy	45,2	44,0 - 46,5
Always easy	40,5	39,2 - 41,7
Ask healthcare providers questions to get… [2]		
Cannot do or always difficult	0,7	0,4 - 1,0
Usually difficult	1,9	1,5 - 2,2
Sometimes difficult	10,3	9,5 - 11,2
Usually easy	43,5	42,3 - 44,8
Always easy	43,6	42,3 - 44,9
Make sure that healthcare providersunderstand… [2]		
Cannot do or always difficult	1,1	0,8 - 1,5
Usually difficult	2,6	2,2 - 3,0
Sometimes difficult	12,2	11,4 - 13,1
Usually easy	44,9	43,6 - 46,1
Always easy	39,2	38,0 - 40,5
Feel able to discuss about health concerns with a… [2]		
Cannot do or always difficult	0,8	0,5 - 1,1
Usually difficult	2,1	1,7 - 2,6
Sometimes difficult	8,9	8,2 - 9,7
Usually easy	43,3	42,1 - 44,6
Always easy	44,9	43,6 - 46,1
Mean ± SEM for all items	4,3 ± 0,01	
Score < 3,5 [3]	11,4 (7 276)	10,5 - 12,3

(1) Scale 6 of Health Literacy Questionnaire (HLQ) =Ability to actively engage with healthcare providers ('Engagement')

(2) Weighted percentages, HLQ™ items are truncated. HLQ is protected by copyright and cannot be used without permission of the authors

(3) Denominator: number of women

Table 72: Organisation of the return home

(Live births in metropolitan France)

	% [1]	95 % IC
Midwife visit [2]	79,1	78,0 - 80,2
	(7 299)	
If yes, number of visits		
1	21,8	20,7 - 22,9
2	39,4	38,1 - 40,8
≥ 3	38,8	37,4 - 40,1
	(5 931)	
If yes, as a part of		
Program of accompaniment of return to home (PRADO)	47,4	46,0 - 48,8
Hospitalisation at home	1,4	1,1 - 1,7
Maternal and Child Protection (PMI)	7,4	6,5 - 8,3
Another system	0,5	0,3 - 0,7
No specific system	22,5	21,4 - 23,7
Does not know	20,8	19,6 - 22,0
	(5 931)	
Visit from a specialized childcare attendant [2]	19,5	18,5 - 20,6
	(7 237)	
If yes, number of visits		
1	38,8	35,9 - 41,8
2	23,5	20,9 - 26,2
≥ 3	37,7	34,7 - 40,8
	(1 290)	
If yes, as a part of		
Hospitalisation at home	4,9	3,6 - 6,5
Maternal and Child Protection (PMI)	71,0	68,1 - 73,9
Another system	0,8	0,4 - 1,5
No specific system	10,8	8,9 - 13,0
Does not know	12,4	10,3 - 14,6
	(1 297)	

(1) Weighted percentages

(2) Denominator: number of women

Table 73: Women's health

(Live births in metropolitan France)

	% [1]	95 % IC
Pertussis vaccination performed in the last 10 years [2]		
Yes, vaccination up to date before pregnancy	48,8	47,5 - 50,1
Yes, vaccination performed during pregnancy	1,4	1,1 - 1,7
Yes, vaccination performed after delivery	17,1	16,1 - 18,1
No	17,1	16,0 - 18,2
Does not know	15,7	14,6 - 16,7
	(6 727)	
Disability declared by the woman [2]	1,9	1,6 - 2,3
	(6 732)	
If yes, medical management of the pregnancy considered appropriate for the disability:		
When registering at the maternity unit	78,7	69,2 - 86,3
During the pregnancy monitoring	76,2	66,3 - 84,4
During the delivery	79,8	70,4 - 87,4
During the stay of maternity unit	72,1	62,3 - 80,6
Since returning home	67,9	57,8 - 76,9
	(120)	
Weight difference: 2 months postpartum - pre-pregnancy (based on pre-pregnancy BMI) [2]		
< 18,5	6,1 ± 0,33	
18,5-24,9	4,6 ± 0,08	
25,0-29,9	3,5 ± 0,17	
≥ 30	-0,3 ± 0,28	
	(6 406)	
Current method of contraception [2,3]		
None	24,0	22,9 - 25,2
Pils	39,3	38,0 - 40,5
Intra-uterine device	10,3	9,5 - 11,1
Implant	4,2	3,7 - 4,8
Condom (male or female)	20,3	19,3 - 21,3
Withdrawal	3,3	2,9 - 3,8
Periodic abstinence	1,9	1,6 - 2,3
Other method	0,9	0,6 - 1,1
	(7 247)	
Resumption of sexual relations since birth [2]		
Yes	61,5	60,3 - 62,8
No	34,0	32,8 - 35,2
Does not to answer	4,5	3,9 - 5,1
	(7 236)	

(1) Weighted percentages

(2) Denominator: number of live births

(3) Even without resuming sexual activity

Table 74: Feelings on returning home and mental health

(Live births in metropolitan France)

	% [1]	95 % IC
EPDS score at 2 months postpartum [2]		
0-9	70,7	69,5 - 71,9
10-12	12,6	11,7 - 13,5
≥13	16,7	15,7 - 17,7
	(7 133)	
Mean ± SEM	7,0 ± 0,07	
Mental health since adolescence		
Follow-up with a psychologist (≥ 3 months)	13,1	12,3 - 14,0
	(6 719)	
Follow-up with a psychiatrist (≥ 3months)	4,4	3,9 - 4,9
	(6 715)	
Hospitalisation	2,3	2,0 - 2,8
	(6 714)	
Feeling since the birth of the child [3]		
Pleasant period	26,8	25,6 - 28,0
Quite pleasant period, despite some difficulties	56,5	55,2 - 57,8
Difficult period	13,0	12,2 - 13,9
A very difficult period	3,7	3,2 - 4,2
	(7 254)	
Sources of difficulties		
Long days	28,7	27,4 - 30,1
Feeling of loneliness	37,3	35,9 - 38,7
Lack of guidance on how to care for the child	16,2	15,1 - 17,2
Difficulties in caring for the child	22,8	21,6 - 24,0
Tiredness	92,4	91,5 - 93,2
Breastfeeding sometimes complicated	48,7	47,2 - 50,1
Health of the child	39,5	38,1 - 40,9
Health of the mother	33,4	32,0 - 34,8
	(5 443)	
Relatives in case of serious personal difficulties [3]		
None	3,5	3,0 - 4,2
1 - 2	31,7	30,5 - 32,9
3 - 5	42,3	41,1 - 43,5
6 or more	22,5	21,4 - 23,6
	(7 234)	
Physical pain associated with childbirth still present [4]	24,6	23,5 - 25,7
	(7 247)	

(1) Weighted percentages
(2) 10-item postpartum depression rating scale
(3) Denominator: number of women

Table 75: Life situation

(Live births in metropolitan France)

	% [1]	95 % IC
Employment status at 2 months [2]		
Has not return to work	73,2	71,9 - 74,5
Did not work during pregnancy	24,6	23,3 - 25,9
Returned to work	2,2	1,9 - 2,6
	(7 284)	
Planned or current childcare if employed [3]		
Individual care (child care worker)	31,5	30,3 - 32,6
Collective care (day care center)	30,4	29,3 - 31,6
The mother or partner	30,1	28,9 - 31,5
The family or friends	13,5	12,6 - 14,5
Does not know	8,7	8,0 - 9,5
	(6 792)	

(1) Weighted percentages

(2) Denominator: number of women

(3) Denominator: number of live births

Table 76: Tobacco use before birth (part 1)

(Live births in metropolitan France)

	% [1]	95 % IC
One year prior to pregnancy, use of electronic cigarettes [2]		
No	94,6	94,0 - 95,2
Yes, nicotine free	0,8	0,6 - 1,0
Oui, with nicotine	3,6	3,1 - 4,1
Yes, with and without nicotine	0,8	0,6 - 1,1
Yes, not specified	0,2	0,1 - 0,3
	(6 722)	
In the 3rd trimester of pregnancy, consumption of electronic cigarettes [2]		
No	98,7	98,3 - 98,9
Yes	1,3	1,1 - 1,7
	(6 724)	
If yes, everyday	74,6	64,0 - 83,3
	(94)	
If you were a smoker before pregnancy, reduce or stop your consumption of standard cigarettes during pregnancy [2]		
Yes	87,5	85,6 - 89,2
No	12,5	10,8 - 14,4
	(1 782)	
If yes, sources of motivation		
Woman's health	55,9	53,2 - 58,6
Health of the child	99,3	98,7 - 99,7
Advice from family and friends	26,9	24,5 - 29,4
Tobacco price	26,5	24,2 - 28,8
Other reason	2,2	1,4 - 3,3
	(1 561)	

(1) Weighted percentages

(2) Denominator: number of women

Table 77: Tobacco, cannabis and alcohol use since birth (part 2)
(Live births in metropolitan France)

	% [1]	95 % IC
Current consumption of cigarettes [2]		
No	83,3	82,3 - 84,3
Yes, classic cigarettes	14,6	13,7 - 15,5
Yes, electronic cigarettes	1,5	1,2 - 1,8
Yes, both	0,6	0,4 - 0,8
	(6 662)	
If* classic cigarettes, *mean ± SEM	8,2 ± 0,2	7,8 - 8,6
	(940)	
Since returning home, cannabis use [2]		
No	99,5	99,2 - 99,6
Yes	0,5	0,4 - 0,8
	(6 719)	
If yes, frequency of use		
< 10 times per month	54,6	36,1 - 72,2
> 10 times per month	45,4	27,8 - 63,9
	(34)	
Since returning home, alcohol consumption [2]		
Never	64,9	63,7 - 66,1
Once a month or less	15,0	14,1 - 15,9
2 to 4 times a month	14,8	13,9 - 15,6
2 to 3 times a week	4,4	3,9 - 4,9
At least 4 times per week	0,9	0,7 - 1,2
	(6 723)	
If consumed, quantity consumed in one week		
Less than one glass	50,9	48,9 - 52,9
1 to 4 glasses	44,0	42,0 - 46,0
5 to 10 glasses	4,7	3,9 - 5,6
At least 11 glasses	0,4	0,2 - 0,7
	(2 610)	

(1) Weighted percentages
(2) Denominator: number of women

Table 78: Advice received from health care professionals
(Live births in metropolitan France)

	% [1]	95 % IC
Information received on the role and contact details of the Maternal and Child Protection (PMI) [2]	81,9 (7 158)	80,9 - 82,8
If yes, information received [2]		
During the pregnancy	46,0	44,6 - 47,4
At the maternity ward	61,0	59,6 - 62,4
After returning home	67,4	66,0 - 68,7
During a previous pregnancy	46,9	45,4 - 48,3
Other moment	4,0 (5 844)	3,4 - 4,5
Advices for calming or soothing baby's crying during pregnancy or since delivery [2]	49,6 (7 147)	48,3 - 50,8
If yes, advice provided by [2]***:***		
Maternity care professionals	63,1	61,4 - 64,8
Relatives	76,1	74,5 - 77,6
Liberal health professionals (liberal midwife, general practitioner, pediatrician)	81,8	80,3 - 83,2
Maternal and Child Protection (PMI)	39,1	37,3 - 40,9
Other persons	6,2 (3 563)	5,4 - 7,1
Advices for placing the baby to sleep (supine, on the back) given by health professionals [2]		
No advice	6,7	6,0 - 7,5
Yes, during pregnancy	37,9	36,7 - 39,2
Yes, after childbirth at the maternity ward	76,2	75,0 - 77,4
Yes, after leaving the maternity ward	43,2	42,0 - 44,5
Does not know	3,2 (7 158)	2,7 - 3,7

(1) Weighted percentages
(2) Denominator: number of women

Table 79: Infant health status (part 1)

(Live births in metropolitan France)

	% [1]	95 % IC
Newborn baby returned home [2]		
At the same time as the mother	95,4	94,8 - 96,0
Home before the mother	0,2	0,1 - 0,3
Home after the moher	3,7	3,1 - 4,2
Still hospitalised	0,7	0,5 - 1,1
	(7 490)	
Infant currently [3]		
In good health	85,7	84,7 - 86,6
Fairly healthy	13,5	12,7 - 14,4
Rather unhealthy	0,8	0,5 - 1,1
	(7 252)	
Professional who conducted the second week's examination [3]		
Pediatrician	39,5	38,3 - 40,8
General pratictionner	34,9	33,6 - 36,1
Maternal and Child Protection (PMI)'s physician	6,8	6,1 - 7,6
Other professionnal	6,5	6,0 - 7,2
No consultation with doctor	12,3	11,4 - 13,2
	(7 115)	
Health professional who primarily follows the child [3,4]		
Private pediatrician	43,1	41,8 - 44,4
Private general pratictionner	42,2	40,9 - 43,5
Maternal and Child Protection (PMI)'s professionnals	12,3	11,4 - 13,4
Other professionnals	2,4	2,0 - 2,9
	(6 793)	
Infant vaccinated against tuberculosis [3,4]		
Yes	15,3	14,3 - 16,3
No	84,7	83,7 - 85,7
	(6 745)	
Infant vaccinated against rotavirus [3,4]		
Yes	8,5	7,8 - 9,2
No	91,5	90,8 - 92,2
	(6 623)	

(1) Weighted percentages
(2) Denominator: number of live births
(3) Denominator: number of children returned home
(4) At the time of filling out the questionnaire

Table 80: Infant health status (part 2)

(Live births in metropolitan France)

	% [1]	95 % IC
Emergency departement since birth [2]	15,7	14,7 - 16,6
	(6 787)	
If yes, number of visits		
1	82,6	79,8 - 85,1
≥ 2	17,4	14,9 - 20,2
	(1 003)	
If yes, age of first emergency room consultation		
Less than 8 days old	9,2	7,4 - 11,3
Between 9 and 30 days old	50,1	46,6 - 53,5
More than a month of life	40,7	37,4 - 44,2
	(1 005)	
Infant's hospitalisation since discharge from the maternity ward [2]	7,2	6,6 - 8,0
	(6 779)	
If yes, number of hospitalisations		
1	94,1	91,3 - 96,2
2	5,0	3,2 - 7,5
≥ 3	0,9	0,1 - 2,9
	(456)	

(1) Weighted percentages

(2) Denominator: number of live births

Table 81: Nutrition of the child

(Live births in metropolitan France)

	% [1]	95 % IC
Breastfeeding initiation [2]		
Yes	74,2	73,1 - 75,3
No	25,8	24,7 - 26,9
	(6 796)	
If yes,		
The infant consumed a commercial infant formula [2]		
Yes, regularly	44,5	42,9 - 46,1
Yes, occasionally	17,1	15,9 - 18,3
No	38,4	36,9 - 39,9
	(5 023)	
Since leaving the maternity ward, support received by health professionals for breastfeeding problem [2]***s***		
Yes	30,2	28,9 - 31,6
No, but some support would have been helpful	16,8	15,6 - 18,1
No, did not feel the need	46,6	45,0 - 48,2
No more breastfeeding after leaving the maternity ward	6,3	5,6 - 7,1
	(5 010)	
If yes, time of support [3]		
During home visits	72,2	69,8 - 74,5
During consultations	62,9	60,4 - 65,4
By phone	30,1	27,8 - 32,5
	(1 653)	
Current infant feeding if breastfeeding initiated [4]		
Exclusive breastfeeding	46,3	44,7 - 47,8
Mixed breastfeeding	26,7	25,2 - 28,2
Commercial milk for infants	27,0	25,6 - 28,5
	(5 018)	
If only commercial fomula, age of the child at the end of breastfeeding [2,4]		
≤ 7 days	27,7	25,0 - 30,5
8-21 days	28,2	25,1 - 31,4
22-45 days	32,2	29,4 - 35,1
> 45 days	11,9	10,2 - 13,9
	(1 291)	
Current infant feeding [2,4]		
Exclusive breastfeeding	34,4	33,1 - 35,6
Mixed breastfeeding	19,8	18,7 - 21,0
Commercial milk for infants	45,8	44,5 - 47,2
	(6 790)	

(1) Weighted percentages
(2) Denominator: number of live births
(3) Several possible answers
(4) Depends on the response time to the questionnaire

Table 82: Sleep for mother and child

(Live births in metropolitan France)

	% [1]	95 % IC
During the last few nights, where the infant slept [2]		
Alone in a own room	15,6	14,7 - 16,5
In own bed in the parents' room	70,7	69,5 - 71,9
In the parents' bed	12,4	11,4 - 13,3
In own bed, in the room of other people (brothers, sisters,...)	0,8	0,6 - 1,1
In the bed of other people (brothers, sisters,...)	0,5	0,3 - 0,7
	(6 779)	
During the last few nights, infant's sleeping pattern [2]		
On the back		
Never	2,2	1,6 - 2,9
Rarely	2,0	1,7 - 2,5
Sometimes	4,6	3,9 - 5,2
Often	11,6	10,8 - 12,5
Always	79,6	78,4 - 80,7
	(6 783)	
On the stomach		
Never	82,7	81,6 - 83,8
Rarely	6,9	6,2 - 7,6
Sometimes	6,1	5,5 - 6,8
Often	2,6	2,2 - 3,0
Always	1,7	1,2 - 2,3
	(6 784)	
On the side		
Never	56,5	55,2 - 57,9
Rarely	14,6	13,7 - 15,5
Sometimes	20,0	18,9 - 21,2
Often	7,3	6,5 - 8,0
Always	1,6	1,2 - 2,0
	(6 782)	
In the past week, number of awakenings between 11 p.m. and 6 a.m. [2]		
None	17,5	16,5 - 18,5
Once	36,8	35,5 - 38,1
Twice	29,0	27,9 - 30,3
≥ 3 times	16,7	15,7 - 17,7
	(6 755)	
Over the last 7 nights, number of hours in a row of maternal sleep between 11 p.m. and 6 a.m. (mean ± SEM) [3]	4,6 ± 0,02	
	(6 622)	

(1) Weighted percentages

(2) Denominator: number of live births

(3) Denominator: number of women

Table 83: Use of hygiene and cosmetic products

(Live births in metropolitan France)

	% [1]	95 % IC	
Change in the consumption habits of hygiene and cosmetic products [2]			
During a previous pregnancy	17,1	16,1	18,1
Before this pregnancy	12,1	11,2	13,0
At the beginning of this pregnancy	26,2	25,0	27,3
During the second or third trimester of this pregnancy	19,4	18,3	20,4
Since the birth of the baby	22,5 (6 708)	21,4	23,6
Change of product or discontinuation of use for reasons related to the health of the mother and/or child [2]			
Shower gel	68,7 (1 395)	65,9	71,3
Solid body soap	65,7 (512)	60,9	70,3
Intimate hygiene product	67,0 (1 023)	63,6	70,2
Body lotion or cream	70,4 (1 446)	67,8	73,0
Face lotion or cream	65,3 (1 163)	62,2	68,4
Deodorant	73,9 (1 390)	71,2	76,5
Perfume or eau de toilette	74,7 (1 592)	72,2	77,1
Makeup	58,5 (1 089)	55,1	61,8
Nail polish	73,2 (1 424)	70,6	75,6
Remover	73,4 (1 359)	70,8	76,0
Hair coloring	74,6 (934)	71,5	77,6
Other products	67,2 (302)	61,2	72,8

(1) Weighted percentages

(2) Denominator: number of women

Table 84: Violence against women in the last 12 months

(Live births in metropolitan France)

	% [1]	95 % IC
Psychological abuse [2]		
No	91,9	91,1 - 92,6
Yes, during the pregnancy	3,7	3,2 - 4,2
Yes, since birth	0,5	0,4 - 0,7
Yes, both	1,9	1,5 - 2,2
Does not want to answer	2,1	1,7 - 2,5
	(6 701)	
If yes, by		
The partner	25,3	20,8 - 30,1
A man known by the woman	31,3	26,5 - 36,4
A woman known by the woman	24,4	20,2 - 29,0
A man unknown by the woman	19,2	15,4 - 23,4
A woman unknown by the woman	13,9	10,7 - 17,6
	(404)	
If yes, at least twice	58,7	53,5 - 63,8
	(399)	
Physical abuse [2]		
No	97,8	97,3 - 98,2
Yes, during the pregnancy	0,9	0,7 - 1,2
Yes, since birth	0,2	0,1 - 0,4
Yes, both	0,2	0,1 - 0,3
Does not want to answer	0,9	0,7 - 1,2
	(6 696)	
If yes, by		
The partner	34,5	24,0 - 46,2
A man known or unkown by the woman	45,1	32,9 - 57,8
A woman known or unknown by the woman	19,1	10,5 - 30,5
	(81)	
If yes, at least twice	27,7	17,8 - 39,6
	(80)	
Sexual abuse [2]		
No	99,1	98,7 - 99,4
Yes, during pregnancy and/or since birth by a man	0,3	0,1 - 0,6
Does not want to answer	0,6	0,4 - 0,9
	(6 692)	

(1) Weighted percentages

(2) Denominator: number of women

Table 85a: Characteristics of maternity units [1], by the type of authorization

(Metropolitan France, not including birth centers)

	2016					2021					
Type of authorization	I	IIA	IIB	III	Total	I	IIA	IIB	III	Total	p [2]
Denominator	(211)	(140)	(82)	(60)	(493)	(170)	(139)	(84)	(60)	(453)	
Status of the maternity unit											
University or regional hospital centre	2	4	5	36	47	1	5	5	36	47	0,8447
Community hospital centre	109	87	67	24	287	93	84	68	24	269	
ESPIC [3]	18	6	4	0	28	16	8	4	0	28	
Private for-profit establishment	81	43	6	0	130	60	42	7	0	109	
Annual number of deliveries											
<500	58	0	0	0	58	50	1	0	0	51	0,9721
500 - 999	99	41	6	0	146	84	51	6	0	141	
1000 -1499	38	41	19	0	98	24	41	25	0	90	
1500 - 1999	10	26	23	6	65	6	24	17	5	52	
2000 - 3499	5	29	32	32	98	6	17	34	37	94	
≥ 3500	0	3	2	22	27	0	5	2	18	25	
Area											
Auvergne-Rhône-Alpes	27	21	7	6	61	23	21	8	6	58	-
Bourgogne-Franche-Comté	7	6	7	2	22	4	6	7	2	19	
Bretagne	8	9	2	4	23	6	10	2	4	22	
Centre-Val de Loire	11	4	4	2	21	8	4	4	2	18	
Corse	2	0	2	0	4	2	0	2	0	4	
Grand Est	21	12	10	5	48	17	10	10	5	42	
Hauts de France	21	14	9	7	51	16	14	8	7	45	
Île-de-France	25	26	17	15	83	20	27	17	15	79	
Normandie	10	8	3	4	25	8	8	3	4	23	
Nouvelle Aquitaine	27	8	8	5	48	22	8	8	5	43	
Occitanie	22	17	3	4	46	18	16	4	4	42	
Pays de la Loire	10	6	4	3	23	10	5	5	3	23	
PACA	19	9	6	3	37	16	10	6	3	35	

(1) In 2016, 4 maternity refused to participate (approximately 120 births), In 2021, 3 refusals to participate (1 level I with less than 999 deliveries, 1 level 1 with less than 2999 deliveries and 1 level IIA with less than 3499 deliveries)

(2) Test comparing the total distribution in 2016 with that in 2021

(3) Private non-profit hospital

Table 85b: Characteristics of maternity units [(1)],by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500
Denominator	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Status of the maternity unit												
University or regional hospital centre	1	0	1	2	29	14	1	0	1	2	30	13
Community hospital centre	43	96	64	35	40	9	39	94	64	24	41	7
ESPIC [(2)]	2	5	3	7	10	1	3	5	3	6	9	2
Private for-profit establishment	12	45	30	21	19	3	8	42	22	20	14	3
Level of care of the maternity unit												
Level I	58	99	38	10	5	0	50	84	24	6	6	0
Level II A	0	41	41	26	29	3	1	51	41	24	17	5
Level II B	0	6	19	23	32	2	0	6	25	17	34	2
Level III	0	0	0	6	32	22	0	0	0	5	37	18
Area												
Auvergne-Rhône-Alpes	6	14	17	11	9	4	6	17	13	11	8	3
Bourgogne-Franche-Comté	4	5	4	6	3	0	2	4	8	2	3	0
Bretagne	1	11	2	1	7	1	2	8	3	4	3	2
Centre-Val de Loire	6	6	3	2	2	2	3	6	5	0	3	1
Corse	1	2	1	0	0	0	2	2	0	0	0	0
Grand Est	8	17	7	8	8	0	7	18	5	2	10	0
Hauts de France	3	16	15	6	9	2	4	16	10	5	9	1
Ile-de-France	2	17	13	9	33	9	0	19	12	9	30	9
Normandie	3	9	4	3	6	0	4	6	3	4	6	0
Nouvelle Aquitaine	10	15	10	7	5	1	8	12	13	3	6	1
Occitanie	9	16	9	4	5	3	8	14	7	5	4	4
Pays de la Loire	0	10	3	3	3	4	2	8	3	2	5	3
PACA	5	8	10	5	8	1	3	11	8	5	7	1

(1) In 2016, 4 maternity refused to participate (approximately 120 births), In 2021, 3 refusals to participate (1 level I with less than 999 deliveries, 1 level 1 with less than 2999 deliveries and 1 level IIA with less than 3499 deliveries)

(2) Private non-profit hospital

Table 86a: Equipment of maternity units, by the type of authorization
(Metropolitan France, not including birth centers)

Type of authorization	2016 I %	2016 IIA %	2016 IIB %	2016 III %	2016 Total %	2021 I %	2021 IIA %	2021 IIB %	2021 III %	2021 Total %	p [2]
Location of the obstetrical block for cesarean sections [1]											
Birth area or adjoining	61,2	81,4	86,6	100,0	76,0	80,6	90,6	97,6	100,0	89,4	<,0001
Same building	36,4	18,6	13,4	0,0	23,0	17,1	9,4	2,4	0,0	9,7	
Other building	2,4	0,0	0,0	0,0	1,0	2,4	0,0	0,0	0,0	0,9	
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	
Presence on site of											
A 24/7 recovery room	73,2	90,6	95,1	98,3	84,9	82,9	91,4	98,8	98,3	90,5	0,0087
	(209)	(139)	(81)	(60)	(489)	(170)	(139)	(84)	(60)	(453)	
A continuous surveillance unit	79,2	83,5	90,2	88,1	83,4	78,8	84,2	90,5	86,7	83,7	0,9024
	(207)	(139)	(82)	(59)	(487)	(170)	(139)	(84)	(60)	(453)	
An adult critical care unit	15,9	55,7	89,0	86,7	48,2	18,8	59,0	88,1	91,7	53,6	0,0927
	(208)	(140)	(82)	(60)	(490)	(170)	(139)	(84)	(60)	(453)	
If no adult resuscitation care departement on site, distance to nearest critical care unit ≥ 30 km	45,3	25,8	0,0	0,0	37,5	51,4	25,0	10,0	0,0	41,1	0,4184
	(172)	(62)	(9)	(8)	(251)	(138)	(56)	(10)	(5)	(209)	
Presence of a kangaroo care unit on site	3,8	37,4	53,7	71,7	30,0	5,3	53,2	61,9	86,7	41,3	0,0003
	(209)	(139)	(82)	(60)	(490)	(170)	(139)	(84)	(60)	(453)	
Presence on site of a nursery	-	-	-	-	-	75,3	79,1	66,7	75,0	74,8	
						(170)	(139)	(84)	(60)	(453)	
If neonatal ward, developmental care program (including NIDCAP)	-	-	-	-	-	-	9,0	27,4	51,7	23,6	
							(134)	(84)	(58)	(276)	
Equipment for women with reduced mobility	65,9	77,0	77,8	84,7	73,3	69,4	81,3	83,3	85,0	77,7	0,1176
	(208)	(139)	(81)	(59)	(487)	(170)	(139)	(84)	(60)	(453)	
Networking with at least one local perinatal center (CPP)	-	-	-	-	-	24,1	33,8	41,7	35,0	31,8	
						(170)	(139)	(84)	(60)	(453)	

(1) Only the most favorable situation was presented when more than one answer was checked
(2) Test comparing the total distribution in 2016 with that in 2021

Table 86b: Equipment of maternity units, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Location of the obstetrical block for cesarean sections [(1)]												
Birth area or adjoining	35,1	63,0	85,7	93,8	90,8	100,0	58,8	83,0	97,8	98,1	100,0	100,0
Same building	61,4	34,9	14,3	6,2	9,2	0,0	33,3	17,0	2,2	1,9	0,0	0,0
Other building	3,5	2,1	0,0	0,0	0,0	0,0	7,8	0,0	0,0	0,0	0,0	0,0
	(57)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence on site of												
A 24/7 recovery room	74,1	80,8	84,5	85,9	92,8	100,0	90,2	82,3	91,1	94,2	98,9	96,0
	(58)	(146)	(97)	(64)	(97)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
A continuous surveillance unit	71,9	84,7	82,7	86,2	87,5	81,5	80,4	80,1	87,8	94,2	83,0	76,0
	(57)	(144)	(98)	(65)	(96)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
An adult critical care unit	12,1	33,3	54,1	66,2	65,3	77,8	19,6	37,6	62,2	69,2	73,4	76,0
	(58)	(144)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
If no adult resuscitation care departement on site, distance to nearest critical care unit ≥ 30 km	75,5	49,5	20,9	0,0	0,0	0,0	85,4	50,6	20,6	0,0	0,0	0,0
	(49)	(97)	(43)	(22)	(34)	(6)	(41)	(87)	(34)	(16)	(25)	(6)
Presence of a kangaroo unit on site	1,7	14,4	21,6	44,6	54,6	81,5	2,0	23,4	41,1	42,3	74,5	96,0
	(58)	(146)	(97)	(65)	(97)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence on site of a nursery	-	-	-	-	-	-	70,6	76,6	73,3	80,8	70,2	84,0
							(51)	(141)	(90)	(52)	(94)	(25)
If neonatal ward, developmental care program (including NIDCAP)				-	-	-	-	9,1	12,5	28,3	29,1	58,3
								(55)	(64)	(46)	(86)	(24)
Equipment for women with reduced mobility	43,9	71,7	75,5	81,3	80,4	92,3	70,6	66,0	83,3	80,8	86,2	100,0
	(57)	(145)	(98)	(64)	(97)	(26)	(51)	(141)	(90)	(52)	(94)	(25)
Networking with at least one local perinatal center			-	-	-	-	27,5	33,3	35,6	32,7	30,9	20,0
							(51)	(141)	(90)	(52)	(94)	(25)

(1) Only the most favorable situation was presented when more than one answer was checked

Table 87a: Medical file management, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [3]
	%	%	%	%	%	%	%	%	%	%	
Patient file [1]											
Paper record	62,7	54,3	61,0	53,3	58,9	12,4	15,1	17,9	15,0	14,6	-
Computerized record	37,3	45,7	39,0	46,7	41,1	22,4	23,0	33,3	25,0	24,9	
Both	-	-	-	-	-	65,3	61,9	48,8	60,0	60,5	
	(209)	(138)	(82)	(60)	(489)	(170)	(139)	(84)	(60)	(453)	
If computerized record, common to several structures											
No	-	-	-	-	-	68,3	65,2	55,9	53,1	63,1	
Yes, common non-shared	-	-	-	-	-	17,9	13,1	8,8	16,3	14,6	
Yes, common and shared	-	-	-	-	-	13,8	21,7	35,3	30,6	22,3	
						(145)	(115)	(68)	(49)	(377)	
Structure concerned by the common file [2]											
All the structures of the perinatal network	-	-	-	-	-	18,6	29,7	13,8	9,1	19,1	
A part of the perinatal network structures	-	-	-	-	-	65,1	62,2	51,7	63,6	61,1	
Local perinatal centers	-	-	-	-	-	7,0	8,1	34,5	27,3	16,8	
Other structures	-	-	-	-	-	9,3	0,0	0,0	0,0	3,1	
						(43)	(37)	(29)	(22)	(131)	

(1) Different wording of questions: in 2016, computerized medical record from the first contact

(2) In 2016, only perinatal health networks

(3) Test comparing the total distribution in 2016 with that in 2021

Table 87b: Medical file management, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Patient file [1]												
Paper record	70,2	60,3	60,2	58,7	51,0	51,9	23,5	9,2	18,9	13,5	13,8	16,0
Computerized record	29,8	39,7	39,8	41,3	49,0	48,1	25,5	19,1	23,3	36,5	28,7	24,0
Both	-	-	-	-	-	-	51,0	71,6	57,8	50,0	57,4	60,0
	(57)	(146)	(98)	(63)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
If computerized record, common to several structures												
No	-	-	-	-	-	-	52,6	69,6	64,3	64,4	57,0	60,0
Yes, common non-shared	-	-	-	-	-	-	21,1	14,4	12,9	15,6	12,6	15,0
Yes, common and shared	-	-	-	-	-	-	26,3	16,0	22,8	20,0	30,4	25,0
							(38)	(125)	(70)	(45)	(79)	(20)
Structure concerned by the common file [2]												
All the structures of the perinatal network	-	-	-	-	-	-	27,8	33,3	9,1	13,3	9,1	14,3
A part of the perinatal network structures	-	-	-	-	-	-	61,1	55,6	50,0	86,7	60,6	71,4
Local perinatal centers	-	-	-	-	-	-	5,6	5,6	36,4	0,0	30,3	14,3
Autres structures	-	-	-	-	-	-	5,6	5,6	4,5	0,0	0,0	0,0
							(18)	(36)	(22)	(15)	(33)	(7)

(1) Different wording of questions: in 2016, computerized medical record from the first contact

(2) In 2016, only perinatal health networks

Table 88a: Management of coding in the Medical Information Systems Program (PMSI), by the type of authorization
(Metropolitan France, not including birth centers)

Type of authorization	2021 I %	IIA %	IIB %	III %	Total %
Coding of PMSI diagnoses of maternal stays by (1)					
A senior doctor	26,5	22,3	26,2	35,0	26,3
A midwife	43,5	42,4	58,3	75,0	50,1
A medical intern	2,4	2,9	13,1	13,3	6,0
An administrative assistant	25,9	15,8	13,1	18,3	19,4
Staff in the departement of medical information (DIM)	81,8	79,9	75,0	68,3	78,1
Other categories of personnel	5,3	4,3	2,4	1,7	4,0
	(170)	(139)	(84)	(60)	(453)
Coding of PMSI diagnosis of neonatal stay by (1)					
A pediatrician	27,6	28,3	38,1	40,0	31,4
A midwife	25,3	28,3	39,3	38,3	30,5
A medical intern	1,2	2,9	1,2	5,0	2,2
A child care nurse	3,5	5,1	7,1	6,7	5,1
An administrative assistant	21,8	15,9	16,7	23,3	19,2
Staff in the departement of medical information (DIM)	81,8	78,3	71,4	70,0	77,2
Other categories of personnel	5,9	5,8	2,4	0,0	4,4
	(170)	(139)	(84)	(60)	(453)

(1) Several possible answers

Table 88b: Management of coding in the Medical Information Systems Program (PMSI), by the number of deliveries
(Metropolitan France, not including birth centers)

	2021					
Annual number of deliveries	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥ 3500
	%	%	%	%	%	%
Coding of PMSI diagnoses of maternal stays by [(1)]						
A senior doctor	25,5	27,0	21,1	26,9	34,0	12,0
A midwife	51,0	49,6	42,2	44,2	57,4	64,0
A medical intern	0,0	2,8	6,7	9,6	11,7	4,0
An administrative assistant	27,5	20,6	24,4	19,2	11,7	8,0
Staff in the departement of medical information (DIM)	82,4	80,9	82,2	71,2	73,4	72,0
Other categories of personnel	0,0	1,4	7,8	7,7	6,4	0,0
	(51)	(141)	(90)	(52)	(94)	(25)
Coding of PMSI diagnosis of neonatal stay by [(1)]						
A pediatrician	17,6	31,2	28,1	32,7	42,6	28,0
A midwife	27,5	32,6	30,3	28,8	27,7	40,0
A medical intern	0,0	2,8	1,1	1,9	4,3	0,0
A child care nurse	2,0	6,4	6,7	3,8	4,3	4,0
An administrative assistant	23,5	18,4	22,5	19,2	18,1	8,0
Staff in the departement of medical information (DIM)	80,4	82,3	78,7	71,2	71,3	72,0
Other categories of personnel	3,9	2,8	7,8	3,8	5,3	0,0
	(51)	(141)	(89)	(52)	(94)	(25)

(1) Several possible answers

Table 89a: Medical staff in the delivery ward, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I %	2016 IIA %	2016 IIB %	2016 III %	2016 Total %	2021 I %	2021 IIA %	2021 IIB %	2021 III %	2021 Total %	p [2]
Permanent presence of a doctor to perform cesarean sections	92,8	97,8	100,0	100,0	96,3	97,1	99,3	100,0	100,0	98,7	0,0215
	(208)	(139)	(82)	(59)	(488)	(170)	(139)	(84)	(60)	(453)	
Presence of an obstetrician-gynecologist											
Permanently on site [1]	31,0	71,4	90,2	100,0	60,8	42,4	76,3	90,5	100,0	69,3	0,0185
No systematic presence during the day on weekdays	8,6	5,0	2,4	0,0	5,5	8,2	1,4	0,0	0,0	3,5	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Presence of a pediatrician											
Permanently on site [1]	8,6	28,6	92,7	100,0	39,4	12,9	35,3	96,4	100,0	46,8	0,0073
No systematic presence during the day on weekdays	35,2	7,9	1,2	0,0	17,5	22,4	8,6	0,0	0,0	11,0	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Presence of an anesthesiologist-critical-care specialist											
Permanently on site [1]	58,1	95,7	100,0	100,0	80,9	65,3	96,4	100,0	100,0	85,9	0,0930
No systematic presence during the day on weekdays	2,9	0,7	0,0	0,0	1,4	4,1	0,0	0,0	0,0	1,5	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Presence of an intern in obstetrics											
Permanently on site [1]	5,2	25,7	65,9	100,0	32,7	4,7	22,3	66,7	100,0	34,2	0,6270
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Presence of an intern in pediatrics											
Permanently on site [1]	1,9	13,6	51,2	81,7	23,2	1,2	13,7	40,5	78,3	22,5	0,8109
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Presence of an intern in anesthesiology											
Permanently on site [1]	0,5	10,0	31,7	75,0	17,5	0,0	17,3	36,9	88,3	23,8	0,0163
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	

(1) On site day, night and weekend

(2) Test comparing the total distribution in 2016 with that in 2021

Table 89b: Medical staff in the delivery ward, by the number of deliveries

(Metropolitan France, not including birth centers)

Annual number of deliveries	2016						2021					
	<500	500-999	1000-1499	1500 - 1999	2000 - 3499	≥ 3500	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥ 3500
	%	%	%	%	%	%	%	%	%	%	%	%
Permanent presence of a doctor to perform caesarean sections	91,4	95,2	94,8	98,5	100,0	100,0	98,0	98,6	98,9	98,1	98,9	100,0
	(58)	(145)	(96)	(65)	(97)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of an obstetrician-gynecologist												
Permanently on site [1]	19,0	24,7	64,3	98,5	100,0	100,0	31,4	38,3	82,2	98,1	100,0	100,0
No systematic presence during the day on weekdays	6,9	9,6	9,2	0,0	0,0	0,0	5,9	7,8	1,1	1,9	0,0	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of a pediatrician												
Permanently on site [1]	6,9	11,6	29,6	61,5	80,6	92,6	19,6	14,2	47,8	59,6	89,4	96,0
No systematic presence during the day on weekdays	34,5	23,3	27,6	6,2	0,0	3,7	15,7	20,6	11,1	3,8	1,1	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of an anesthesiologist-critical-care specialist												
Permanently on site [1]	39,7	69,9	84,7	100,0	100,0	100,0	54,9	75,2	95,6	98,1	98,9	100,0
No systematic presence during the day on weekdays	1,7	2,7	2,0	0,0	0,0	0,0	2,0	3,5	0,0	1,9	0,0	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of an intern in obstetrics												
Permanently on site [1]	0,0	8,2	25,5	46,2	71,4	88,9	5,9	10,6	25,6	42,3	76,6	80,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of an intern in pediatrics												
Permanently on site [1]	0,0	8,9	14,3	33,8	45,9	74,1	3,9	7,1	15,6	25,0	51,1	60,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Presence of an intern in anesthesiology												
Permanently on site [1]	0,0	2,1	9,2	20,0	40,8	77,8	0,0	5,7	13,3	26,9	59,6	72,0
	(58)	(145)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)

(1) On site day, night and weekend

Table 90a: Health care teams in the delivery ward [1] by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I %	2016 IIA %	2016 IIB %	2016 III %	2016 Total %	2021 I %	2021 IIA %	2021 IIB %	2021 III %	2021 Total %	p [5]
Average number of midwives present [2,3]											
Day of weekday	1,3	2,0	2,2	3,2	1,9	1,3	2,0	2,6	3,5	2,1	-
Night	1,2	1,8	2,1	3,0	1,7	1,2	1,8	2,3	3,3	1,9	-
Day of weekend	1,3	1,9	2,2	3,1	1,8	1,3	1,9	2,4	3,4	2,0	-
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Average number of dedicated nurses' aides or auxiliary nurses											
Day of weekday	1,1	1,5	1,9	3,0	1,6	1,1	1,4	2,0	2,9	1,6	-
Night	1,0	1,3	1,6	2,5	1,5	1,0	1,3	1,8	2,6	1,4	-
Day of weekend	1,1	1,5	1,8	2,9	1,5	1,1	1,4	1,9	2,7	1,5	-
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Average number of dedicated nurses [4]											
Day of weekday	0,1	0,1	0,1	0,4	0,1	0,1	0,1	0,2	0,4	0,2	-
Night	0,1	0,1	0,2	0,3	0,1	0,0	0,1	0,2	0,3	0,1	-
Day of weekend	0,0	0,1	0,1	0,3	0,1	0,0	0,1	0,2	0,3	0,1	-
	(209)	(140)	(81)	(60)	(490)	(170)	(139)	(84)	(60)	(453)	
Average number of dedicated nurse anesthetists											
Day of weekday	0,1	0,2	0,5	0,7	0,2	0,1	0,1	0,4	0,9	0,3	-
Night	0,1	0,1	0,4	0,7	0,2	0,1	0,1	0,3	0,7	0,2	-
Day of weekend	0,1	0,1	0,4	0,7	0,2	0,1	0,1	0,3	0,7	0,2	-
	(209)	(140)	(81)	(59)	(489)	(170)	(139)	(84)	(60)	(453)	

(1) In 2016: Birth sector (birth room and obstetrical emergencies)

(2) In 2016: Calculation of the number of midwives in delivery rooms after excluding midwives dedicated only to emergency room

(3) In 2021: 6 maternity units report having midwives on call during the day on weekdays, 30 during the night on weekdays and 18 during the weekend during the day

(4) In 2021: Child care nurses are included

(5) non-comparable data, different wording of questions between 2016 and 2021

Table 90b: Health care teams in the delivery ward [1], by the number of deliveries

(Metropolitan France, not including birth centers)

Annual number of deliveries	2016						2021					
	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥ 3500	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥ 3500
	%	%	%	%	%	%	%	%	%	%	%	%
Average number of midwives present [2,3]												
Day of weekday	1,0	1,1	1,8	2,2	2,8	4,2	1,0	1,2	2,0	2,4	3,1	4,4
Night	1,0	1,0	1,6	2,0	2,6	3,9	1,0	1,1	1,8	2,1	2,9	4,1
Day of weekend	1,0	1,0	1,7	2,2	2,7	4,0	1,0	1,2	1,9	2,3	3,0	4,2
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Average number of dedicated nurses' aides or auxiliary nurses												
Day of weekday	1,1	1,0	1,4	1,8	2,2	3,6	1,0	1,1	1,5	1,7	2,3	3,4
Night	1,0	1,0	1,1	1,4	2,0	3,0	0,9	1,0	1,2	1,5	2,1	3,0
Day of weekend	1,1	1,0	1,3	1,7	2,1	3,4	1,0	1,1	1,4	1,6	2,2	3,2
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Average number of dedicated nurses [4]												
Day of weekday	0,0	0,0	0,1	0,0	0,3	0,4	0,0	0,0	0,0	0,1	0,4	0,6
Night	0,0	0,0	0,1	0,1	0,3	0,3	0,0	0,0	0,1	0,1	0,4	0,4
Day of weekend	0,0	0,0	0,1	0,0	0,3	0,3	0,0	0,0	0,0	0,1	0,4	0,4
	(58)	(146)	(96)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Average number of dedicated nurse anesthetists												
Day of weekday	0,0	0,1	0,2	0,3	0,5	0,8	0,2	0,1	0,1	0,3	0,5	1,0
Night	0,0	0,1	0,1	0,2	0,4	0,8	0,1	0,1	0,1	0,1	0,5	0,8
Day of weekend	0,0	0,1	0,1	0,2	0,5	0,8	0,1	0,1	0,1	0,1	0,5	0,8
	(58)	(146)	(96)	(65)	(98)	(26)	(51)	(141)	(90)	(52)	(94)	(25)

(1) In 2016: Birth sector (birth room and obstetrical emergencies)

(2) In 2016: Calculation of the number of midwives in delivery rooms after excluding midwives dedicated only to emergency room

(3) In 2021: 6 maternity units report having midwives on call during the day on weekdays, 30 during the night on weekdays and 18 during the weekend during the day

(4) In 2021: Child care nurses are included

Table 91a: Temporary employees, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2021 I %	IIA %	IIB %	III %	Total %
Use of temporary workers					
Obstetrician-gynecologists, for the delivery sector					
Never	37,1	47,5	57,1	85,0	50,3
Less than once a month	27,6	20,1	16,7	10,0	21,0
Several times a month	35,3	32,4	26,2	5,0	28,7
	(170)	(139)	(84)	(60)	(453)
If used, professionals accustomed to the service (several times per month)	75,0	66,7	81,8	66,7	73,1
	(60)	(45)	(22)	(3)	(130)
Anesthetists, for the obstetrical sector					
Never	46,8	45,3	47,6	66,6	49,1
Less than once a month	18,3	19,4	25,0	16,7	19,7
Several times a month	34,9	35,3	27,4	16,7	31,2
	(169)	(139)	(84)	(60)	(452)
If used, professionals accustomed to the service (several times per month)	84,7	73,5	78,3	80,0	79,4
	(59)	(49)	(23)	(10)	(141)

Table 91b: Temporary employees, by the number of deliveries
(Metropolitan France, not including birth centers)

	2021					
Annual number of deliveries	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥ 3500
	%	%	%	%	%	%
Use of temporary workers						
Obstetrician-gynecologists, for the delivery sector						
Never	25,4	36,9	45,6	59,6	71,3	96,0
Less than once a month	37,3	22,0	20,0	25,0	13,8	4,0
Several times a month	37,3	41,1	34,4	15,4	14,9	0,0
	(51)	(141)	(90)	(52)	(94)	(25)
If used, professionals accustomed to the service (several times per month)	78,9	72,4	64,5	62,5	92,9	-
	(19)	(58)	(31)	(8)	(14)	
Anesthetists, for the obstetrical sector						
Never	37,3	40,0	48,9	55,8	59,6	72,0
Less than once a month	17,6	22,1	15,6	19,2	22,3	16,0
Several times a month	45,1	37,9	35,6	25,0	18,1	12,0
	(51)	(140)	(90)	(52)	(94)	(25)
If used, professionals accustomed to the service (several times per month)	87,0	79,2	71,9	84,6	76,5	100,0
	(23)	(53)	(32)	(13)	(17)	(3)

Table 92a: Temporary employees, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2021 I	IIA	IIB	III	Total
	%	%	%	%	%
Use of temporay workers:					
Pediatricians					
Never	51,2	51,8	60,7	93,3	58,7
Less than once a month	24,7	19,4	20,2	1,7	19,2
Several times a month	24,1	28,8	19,0	5,0	22,1
	(170)	(139)	(84)	(60)	(453)
If used, professionals accustomed to the service (several times per month)	82,9	72,5	43,8	100,0	74,80
	(41)	(40)	(16)	(3)	(100)
Midwives					
Never	55,3	59,7	65,5	78,3	61,6
Less than once a month	10,6	10,1	10,7	10,0	10,4
Several times a month	34,1	30,2	23,8	11,7	28,0
	(170)	(139)	(84)	(60)	(453)
If used, professionals accustomed to the service (several times per month)	96,5	95,2	100,0	100,0	96,8
	(57)	(42)	(20)	(7)	(126)

Table 92b: Temporary employees, by the number of deliveries
(Metropolitan France, not including birth centers)

	2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%
Use of temporary workers:						
Pediatricians						
Never	41,2	51,8	50,0	65,4	74,5	92,0
Less than once a month	35,3	18,4	22,2	19,2	12,8	4,0
Several times a month	23,5	29,8	27,8	15,4	12,8	4,0
	(51)	(141)	(90)	(52)	(94)	(25)
If used, professionals accustomed to the service (several times per month)	83,3	78,6	64,0	62,5	66,7	100,0
	(12)	(42)	(25)	(8)	(12)	(1)
Midwives						
Never	62,7	60,3	68,9	53,8	57,4	72,0
Less than once a month	11,8	14,2	6,7	3,8	12,8	4,0
Several times a month	25,5	25,5	24,4	42,3	29,8	24,0
	(51)	(141)	(90)	(52)	(94)	(25)
If used, professionals accustomed to the service (several times per month)	84,6	97,1	95,5	100,0	100,0	100,0
	(13)	(35)	(22)	(22)	(28)	(6)

Table 93a: Health care personnel, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [1]
	%	%	%	%	%	%	%	%	%	%	
Recourse to a psychologist											
Yes, in-house	98,1	98,6	97,6	100,0	98,4	87,1	89,2	92,9	98,3	90,3	0,2120
Yes, in the network						10,6	10,8	7,1	1,7	8,8	
No	1,9	1,4	2,4	0,0	1,6	2,3	0,0	0,0	0,0	0,9	
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	
Recourse to a psychiatrist											
Yes, in-house	-	-	-	-	-	25,9	46,8	71,4	76,7	47,4	-
Yes, in the network	-	-	-	-	-	41,8	36,7	19,1	16,7	32,7	
No	-	-	-	-	-	32,3	16,5	9,5	6,7	19,9	
						(170)	(139)	(84)	(60)	(453)	
Recourse to a child psychiatrist											
Yes, in-house	-	-	-	-	-	8,8	23,0	41,7	68,3	27,2	-
Yes, in the network	-	-	-	-	-	21,2	24,5	16,7	8,3	19,6	
No	-	-	-	-	-	70,0	52,5	41,7	23,3	53,2	
						(170)	(139)	(84)	(60)	(453)	
Recourse to a psychiatrist/child psychiatrist											
Yes, in-house	67,5	87,1	90,2	100,0	80,9	28,8	52,5	73,8	86,7	52,1	0,1900
Yes, in the network						41,8	36,0	19,0	13,3	32,0	
No	32,5	12,9	9,8	0,0	19,1	29,4	11,5	7,1	0,0	15,9	
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	

(1) Test comparing the total distribution in 2016 with that in 2021 (variables in yes/no)

Table 93b: Health care personnel, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500	<500	500 - 999	1000 - 1499	1500 - 1999	2000 - 3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Recourse to a psychologist												
Yes, in-house	98,3	95,9	100	98,5	100	100	84,3	83,7	92,2	92,3	100,0	92,0
Yes, in the network							11,8	14,9	7,8	7,7	0,0	8,0
No	1,7	4,1	0,0	1,5	0,0	0,0	3,9	1,4	0,0	0,0	0,0	0,0
	(58)	(145)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Recourse to a psychiatrist												
Yes, in-house	-	-	-	-	-	-	37,2	40,4	40,0	50,0	63,8	68,0
Yes, in the network	-	-	-	-	-	-	41,2	32,6	37,8	32,7	24,5	28,0
No	-	-	-	-	-	-	21,6	27,0	22,2	17,3	11,7	4,0
							(51)	(141)	(90)	(52)	(94)	(25)
Recourse to a child psychiatrist												
Yes, in-house	-	-	-	-	-	-	15,7	12,1	23,3	26,9	52,1	56,0
Yes, in the network	-	-	-	-	-	-	17,6	23,4	22,2	13,5	17,0	16,0
No	-	-	-	-	-	-	66,7	64,5	54,5	59,6	30,9	28,0
							(51)	(141)	(90)	(52)	(94)	(25)
Recourse to a psychiatrist/child psychiatrist												
Yes, in-house	77,6	72,4	78,6	83,1	90,8	100	41,2	41,9	44,4	55,8	72,4	76,0
Yes, in the network							37,2	34,0	36,7	28,8	25,5	24,0
No	22,4	27,6	21,4	16,9	9,2	0,0	21,6	24,1	18,9	15,4	2,1	0,0
	(58)	(145)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)

Table 94a: Specific consultations, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [2]
	%	%	%	%	%	%	%	%	%	%	
Consultation in tobaccology											
Yes, in maternity unit	28,2	33,5	36,6	58,3	34,8	44,7	47,5	56,0	73,3	51,4	<,0001
Yes, in the hospital	38,3	43,6	54,9	38,3	42,6	28,8	28,8	35,7	21,7	29,1	
Yes, with an outside expert	-	-	-	-	-	10,6	7,9	1,2	3,3	7,1	
No	33,5	22,9	8,5	3,4	22,6	15,9	15,8	7,1	1,7	12,4	
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	
Consultation in alcohololology											
Yes, in maternity unit	3,3	6,4	4,9	15,0	5,9	14,7	18,7	23,8	38,3	20,7	<,0001
Yes, in the hospital	43,8	57,2	70,7	78,3	56,3	38,2	42,5	59,5	51,7	45,3	
Yes, with an outside expert	-	-	-	-	-	21,8	18,7	9,5	6,7	16,6	
No	52,9	36,4	24,4	6,7	37,8	25,3	20,1	7,1	3,3	17,4	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Consultation in addictology [1]											
Yes, in maternity unit	6,2	12,1	11,0	26,7	11,2	13,5	18,7	21,4	38,3	19,9	<,0001
Yes, in the hospital	43,8	55,0	69,5	71,7	54,7	38,3	41,0	56,0	51,7	44,2	
Yes, with an outside expert	-	-	-	-	-	23,5	19,4	15,5	6,7	18,5	
No	50,0	32,9	19,5	1,6	34,1	24,7	20,9	7,1	3,3	17,4	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Nutritional consultation											
Yes, in maternity unit	-	-	-	-	-	20,6	26,6	29,8	60,0	29,4	
Yes, in the hospital	-	-	-	-	-	62,4	61,2	64,3	36,6	58,9	
Yes, with an outside expert	-	-	-	-	-	9,4	4,3	1,2	1,7	5,3	
No	-	-	-	-	-	7,6	7,9	4,7	1,7	6,4	
If yes,											
For diabetic women only	-	-	-	-	-	21,0	25,8	37,5	32,2	27,1	
For all women	-	-	-	-	-	79,0	74,2	62,5	67,8	72,9	
						(157)	(128)	(80)	(59)	(424)	

(1) Other than alcohol

(2) Test comparing the total distribution in 2016 with that in 2021 (variables in yes/no)

Table 94b: Specific consultations, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Consultation in tobaccology												
Yes, in maternity unit	24,6	27,4	39,8	30,8	44,9	51,9	47,1	47,5	47,8	59,6	55,3	64,0
Yes, in the hospital	42,1	47,9	37,8	44,6	39,8	37,0	33,3	28,4	34,5	19,2	29,8	24,0
Yes, with an outside expert	-	-	-	-	-	-	13,7	8,5	4,4	3,9	4,3	12,0
No	33,3	24,7	22,4	24,6	15,3	11,1	5,9	15,6	13,3	17,3	10,6	0,0
	(57)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Consultation in alcohololology												
Yes, in maternity unit	3,4	4,8	6,1	1,5	10,2	11,1	9,8	20,6	16,7	17,3	27,6	40,0
Yes, in the hospital	53,5	57,5	51,0	55,4	58,2	70,4	54,9	37,6	50,0	46,2	47,9	40,0
Yes, with an outside expert	-	-	-	-	-	-	25,5	17,0	17,8	15,4	9,6	20,0
No	43,1	37,7	42,9	43,1	31,6	18,5	9,8	24,8	15,5	21,1	14,9	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Consultation in addictology [1]												
Yes, in maternity unit	5,2	8,2	11,2	4,6	18,4	29,6	9,8	18,4	17,8	15,4	26,6	40,0
Yes, in the hospital	51,7	55,5	53,1	55,4	56,1	55,6	51,0	39,7	47,8	40,4	46,8	40,0
Yes, with an outside expert	-	-	-	-	-	-	29,4	15,6	21,1	23,1	11,7	20,0
No	43,1	36,3	35,7	40,0	25,5	14,8	9,8	26,3	13,3	21,2	14,9	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Nutritional consultation												
Yes, in maternity unit	-	-	-	-	-	-	19,6	23,4	26,7	25,0	40,4	60,0
Yes, in the hospital	-	-	-	-	-	-	66,7	58,9	64,4	63,5	53,2	36,0
Yes, with an outside expert	-	-	-	-	-	-	5,9	9,2	4,4	3,8	1,1	4,0
No	-	-	-	-	-	-	7,8	8,5	4,4	7,7	5,3	0,0
							(51)	(141)	(90)	(52)	(94)	(25)
If yes,												
For diabetic women only	-	-	-	-	-	-	21,7	20,0	24,4	37,5	36,0	32,0
For all women	-	-	-	-	-	-	78,3	80,0	75,6	62,5	64,0	68,0
							(46)	(130)	(86)	(48)	(89)	(25)

(1) Other than alcohol

Table 95a: Specific supports 1, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [4]
	%	%	%	%	%	%	%	%	%	%	
Implementation of systematic screening for COVID (from January 1, 2021)	-	-	-	-	-	59,2	61,2	60,2	51,7	59,0	
						(169)	(139)	(83)	(60)	(451)	
If yes, method used [1]											
Antigenic test	-	-	-	-	-	23,2	20,5	20,0	22,6	21,7	
PCR-test	-	-	-	-	-	69,7	72,3	70,0	74,2	71,1	
Both	-	-	-	-	-	7,1	7,2	10,0	3,2	7,2	
						(99)	(83)	(50)	(31)	(263)	
Refusal to register low-risk women											
No	68,8	60,6	49,3	40,7	59,9	81,2	84,2	73,8	48,3	76,4	<,0001
Yes	1,5	5,8	11,0	18,6	6,3	1,8	4,3	9,5	28,3	7,5	
No registration system	29,7	33,6	39,7	40,7	33,8	17,0	11,5	16,7	23,4	16,1	
	(205)	(137)	(73)	(59)	(474)	(170)	(139)	(84)	(60)	(453)	
Recourse to a social worker											
No	14,4	9,3	1,2	0,0	9,0	11,7	8,6	0,0	0,0	7,1	<,0001
Yes, dedicated to the maternity unit	17,7	41,4	61,0	85,0	39,9	26,5	56,1	77,4	95,0	54,1	
Yes, not dedicated to the maternity unit	67,9	49,3	37,8	15,0	51,1	61,8	35,3	22,6	5,0	38,8	
	(209)	(140)	(82)	(60)	(491)	(170)	(139)	(84)	(60)	(453)	
Existence of a system to facilitate the care of women in precarious or vulnerable situations [2]											
No	27,1	12,9	8,8	3,3	17,0	21,8	16,5	6,0	1,7	14,6	0,2995
Yes, PASS [3] systematic	21,7	29,3	46,3	58,3	32,4	25,9	31,7	46,4	53,3	35,1	0,3895
Yes, PASS [3] not systematic	14,5	23,6	31,3	30,0	21,8	20,0	15,1	27,4	31,7	21,4	0,8954
Yes, other device	49,8	55,0	55,6	53,3	52,7	32,4	36,7	20,2	13,3	28,9	<,0001
Including multidisciplinary staff	30,4	40,0	43,2	40,0	36,5	46,5	55,4	57,1	51,7	51,9	<,0001
	(207)	(140)	(80)	(60)	(487)	(170)	(139)	(84)	(60)	(453)	
If another system, links formalized by agreements with the actors and partners of the precariousness	-	-	-	-	-	47,2	42,5	51,9	69,2	49,8	
						(89)	(87)	(54)	(39)	(269)	

(1) 2 maternity hospitals report using TROD, 1 does not specify the technique used

(2) Several answers possible

(3) Permanence of access to health care

(4) Test comparing the total distribution in 2016 with that in 2021

Table 95b: Specific supports 1, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Implementation of systematic screening for COVID (from January 1, 2021)	-	-	-	-	-	-	76,5	57,4	61,8	52,9	59,6	32,0
							(51)	(141)	(89)	(51)	(94)	(25)
If yes, method used [1]												
Antigenic test	-	-	-	-	-	-	28,2	12,7	27,8	14,8	26,8	25,0
PCR-test	-	-	-	-	-	-	66,7	77,2	66,7	85,2	64,3	62,5
Both	-	-	-	-	-	-	5,1	10,1	5,5	0,0	8,9	12,5
							(39)	(79)	(54)	(27)	(56)	(8)
Refusal to register low-risk women												
No	65,5	61,0	67,7	66,1	44,8	55,6	80,4	83,7	82,2	90,4	58,5	44,0
Yes	1,7	0,0	0,0	3,4	18,7	33,3	0,0	0,7	1,1	0,0	21,3	48,0
No registration system	32,8	39,0	32,3	30,5	36,5	11,1	19,6	15,6	16,7	9,6	20,2	8,0
	(58)	(141)	(93)	(59)	(96)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Recourse to a social worker												
No	8,6	13,1	9,2	6,2	6,1	3,7	3,9	11,4	7,8	3,9	4,3	4,0
Yes, dedicated to the maternity unit	15,5	24,1	34,7	49,2	64,3	85,2	23,5	39,0	56,7	51,9	81,9	92,0
Yes, not dedicated to the maternity unit	75,9	62,8	56,1	44,6	29,6	11,1	72,5	49,6	35,6	44,2	13,8	4,0
	(58)	(145)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Existence of a system to facilitate the care of women in precarious or vulnerable situations [2]												
No	30,4	20	14,6	13,9	13,3	3,7	17,6	19,1	13,3	19,2	8,5	0,0
Yes, PASS [3] systematic	19,6	24,1	29,2	38,5	46,9	48,2	35,3	30,5	38,9	23,1	40,4	52,0
Yes, PASS [3] not systematic	14,3	23,5	25,0	23,1	18,4	25,9	17,6	21,3	20,0	25,0	24,5	16,0
Yes, other device	44,6	51,7	55,7	46,2	58,2	59,3	29,4	29,1	27,8	32,7	26,6	32,0
Including multidisciplinary staff	25,0	34,5	42,3	33,9	39,8	44,4	47,1	51,1	50,0	50,0	52,1	76,0
	(56)	(145)	(96)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
If another system, links formalized by agreements with the actors and partners of the precariousness	-	-	-	-	-	-	46,4	41,8	50,9	40,0	62,1	61,9
							(28)	(79)	(53)	(30)	(58)	(21)

(1) 2 maternity hospitals report using TROD, 1 does not specify the technique used

(2) Several answers possible

(3) Permanence of access to health care

Table 96a: Specific supports 2, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2021 I	IIA	IIB	III	Total
	%	%	%	%	%
Presence of the Maternal and child protection (PMI) within the establishment [1]					
No	4,7	2,2	1,2	3,3	3,1
Yes, regular visits	78,2	82,0	75,0	85,0	79,7
Yes, staff participation	67,6	81,3	91,7	86,7	78,8
Yes, another form of presence	42,4	44,6	38,1	46,7	42,8
	(170)	(139)	(84)	(60)	(453)
Formalized exchange/liaison procedures with the Maternal and child protection (PMI)	46,2	50,4	52,4	61,7	50,7
	(169)	(139)	(84)	(60)	(452)
Patients systematically informed about the role and contact details of the Maternal and child protection (PMI)	44,7	47,5	56,0	73,3	51,4
	(170)	(139)	(84)	(60)	(453)
Existence of a system to facilitate the management of non-French speaking patients	85,9	90,6	88,1	96,7	89,2
including a consultation with an interpreter	8,2	7,2	16,7	41,7	13,9
	(170)	(139)	(84)	(60)	(453)

(1) Several answers possible

Table 96b: Specific supports 2, by the number of deliveries

(Metropolitan France, not including birth centers)

	2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%
Presence of the Maternal and child protection (PMI) within the establishment (1)						
No	0,0	4,3	2,2	3,8	3,2	4,0
Yes, regular visits	88,2	78,7	76,7	86,5	74,5	84,0
Yes, staff participation	76,5	73,8	84,4	78,8	78,7	92,0
Yes, another form of presence	52,9	42,6	46,7	38,5	37,2	40,0
	(51)	(141)	(90)	(52)	(94)	(25)
Formalized exchange/liaison procedures with the Maternal and child protection (PMI)	54,9	44,7	50,0	38,5	62,4	60,0
	(51)	(141)	(90)	(52)	(93)	(25)
Patients systematically informed about the role and contact details of the Maternal and child protection (PMI)	47,1	47,5	47,8	59,6	55,3	64,0
	(51)	(141)	(90)	(52)	(94)	(25)
Existence of a system to facilitate the management of non-French speaking patients	88,2	86,5	84,4	88,5	96,8	96,0
including a consultation with an interpreter	5,9	3,5	14,4	7,7	29,8	40,0
	(51)	(141)	(90)	(52)	(94)	(25)

(1) Several answers possible

Table 97a: Delivery room management, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [2]
	%	%	%	%	%	%	%	%	%	%	
Birth plan											
Never suggested	-	-	-	-	-	6,5	5,0	4,8	5,0	5,5	
Rarely suggested	-	-	-	-	-	21,8	25,2	46,4	33,3	28,9	
Sometimes suggested	-	-	-	-	-	38,8	50,4	34,5	51,7	43,3	
Systematically suggested	-	-	-	-	-	32,9	19,4	14,3	10,0	22,3	
						(170)	(139)	(84)	(60)	(453)	
Existence of at least one room dedicated to less "medicalized" deliveries (physiological space) [1]	37,0	44,0	35,9	46,7	40,1	67,1	72,7	70,2	66,7	69,3	<,0001
	(184)	(134)	(78)	(60)	(456)	(170)	(139)	(84)	(60)	(453)	
If yes, delivery is possible in this room	83,8	71,2	85,7	82,1	79,8	86,8	87,1	88,1	92,5	87,9	0,0148
	(68)	(59)	(28)	(28)	(183)	(114)	(101)	(59)	(40)	(314)	
If yes, presence of a bathtub in the room	89,7	88,1	89,3	92,9	89,6	90,4	92,1	84,7	90,0	89,8	0,9459
	(68)	(59)	(28)	(28)	(183)	(114)	(101)	(59)	(40)	(314)	
Authorization for waterbirth	19,7	5,8	4,0	3,8	10,4	16,0	10,5	5,4	5,4	10,9	0,8633
	(61)	(52)	(25)	(26)	(164)	(106)	(95)	(56)	(37)	(294)	
Technical platform open to private midwives [1]	15,8	9,0	11,5	8,3	12,1	23,5	23,0	20,2	11,7	21,2	0,0002
	(184)	(134)	(78)	(60)	(456)	(170)	(139)	(84)	(60)	(453)	

(1) Data differ from the 2016 report because of a post-contact of the institutions

(2) Test comparing the total distribution in 2016 with that in 2021

Table 97b: Delivery room management, by the number of deliveries

(Metropolitan France, not including birth centers)

	2016						2021					
Annual number of deliveries	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Birth plan												
Never suggested	-	-	-	-	-	-	2,0	5,7	7,8	1,9	8,5	0,0
Rarely suggested	-	-	-	-	-	-	27,4	29,8	24,4	30,8	27,7	44,0
Sometimes suggested	-	-	-	-	-	-	37,3	38,3	47,8	48,1	46,8	44,0
Systematically suggested	-	-	-	-	-	-	33,3	26,2	20,0	19,2	17,0	12,0
							(51)	(141)	(90)	(52)	(94)	(25)
Existence of at least one room dedicated to less "medicalized" deliveries (physiological space) [(1)]	15,9	37,7	45,7	55,2	39,6	42,3	45,1	68,8	72,2	75,0	78,7	64,0
	(44)	(138)	(94)	(58)	(96)	(26)	(51)	(141)	(90)	(52)	(94)	(25)
If yes, delivery is possible in this room	71,4	80,8	76,7	78,1	84,2	81,8	78,3	88,7	86,2	92,3	89,2	87,5
	(7)	(52)	(43)	(32)	(38)	(11)	(23)	(97)	(65)	(39)	(74)	(16)
If yes, presence of a bathtub in the room	85,7	92,3	86,0	84,4	97,4	81,8	87,0	90,7	87,7	97,4	86,5	93,8
	(7)	(52)	(43)	(32)	(38)	(11)	(23)	(97)	(65)	(39)	(74)	(16)
Authorization for waterbirth	16,7	18,8	10,8	3,7	5,4	0,0	15,0	10,8	13,6	7,9	7,2	20,0
	(6)	(48)	(37)	(27)	(37)	(9)	(20)	(93)	(59)	(38)	(69)	(15)
Technical platform open to private midwives [(1)]	13,6	15,9	11,7	6,9	11,5	3,8	23,5	24,1	24,4	23,1	14,9	8,0
	(44)	(138)	(94)	(58)	(96)	(26)	(51)	(141)	(90)	(52)	(94)	(25)

(1) Data differ from the 2016 report because of a post-contact of the institutions

Table 98a: Breastfeeding support, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [1]
	%	%	%	%	%	%	%	%	%	%	
Presence of at least one consultant/staff expert	54,3	71,4	80,5	85,0	67,3	68,2	74,1	84,5	90,0	75,9	0,0032
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
If yes,											
Qualified lactation consultant (specific training or IBCLC certification)	84,2	84,0	84,8	92,2	85,5	86,2	88,3	97,1	96,3	90,7	0,0379
	(114)	(100)	(66)	(51)	(331)	(116)	(103)	(70)	(54)	(343)	
Time dedicated to this activity											
Full-time	-	-	-	-	-	0,9	2,0	2,9	16,7	4,1	
Part-time	-	-	-	-	-	62,9	68,9	67,1	59,2	65,0	
No time dedicated	-	-	-	-	-	36,2	29,1	30,0	24,1	30,9	
						(116)	(103)	(70)	(54)	(343)	
Facilitation of team meetings	-	-	-	-	-	56,9	68,9	77,1	81,5	68,5	
						(116)	(103)	(70)	(54)	(343)	
With a possible follow-up after leaving maternity unit, if the mother wishes it	88,4	85,0	73,8	80,4	83,2	81,0	76,7	70,0	68,5	75,5	0,0136
	(112)	(100)	(65)	(51)	(328)	(116)	(103)	(70)	(54)	(343)	
Association with lactarium	-	-	-	-	-	26,6	42,4	75,0	91,7	49,1	
						(169)	(139)	(84)	(60)	(452)	
Women informed about the possibilities of donating milk at the lactarium	-	-	-	-	-	57,1	61,9	72,6	85,0	65,1	
						(170)	(139)	(84)	(60)	(453)	

(1) Test comparing the total distribution in 2016 with that in 2021

Table 98b: Breastfeeding support, by the number of deliveries
(Metropolitan France, not including birth centers)

Annual number of deliveries	2016						2021					
	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Presence of at least one consultant/staff expert	43,1	60,3	65,3	76,9	82,7	85,2	62,7	69,5	78,9	75,0	88,3	84,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
If yes,												
Qualified lactation consultant (specific training or IBCLC certification)	84,0	77,3	89,1	86,0	88,9	95,7	90,6	83,7	91,4	94,9	94,0	100,0
	(25)	(88)	(64)	(50)	(81)	(23)	(32)	(98)	(70)	(39)	(83)	(21)
Time dedicated to this activity												
Full-time	-	-	-	-	-	-	0,0	1,0	1,4	2,6	9,6	14,3
Part-time	-	-	-	-	-	-	59,4	60,2	70,0	74,3	65,1	61,9
No time dedicated	-	-	-	-	-	-	40,6	38,8	28,6	23,1	25,3	23,8
							(32)	(98)	(70)	(39)	(83)	(21)
Facilitation of team meetings	-	-	-	-	-	-	59,4	62,2	65,7	76,9	72,3	90,5
							(32)	(98)	(70)	(39)	(83)	(21)
With a possible follow-up after leaving maternity unit, if the mother wishes it	96,0	87,5	86,9	86,0	75,3	65,2	84,4	79,6	75,7	82,1	65,1	71,4
	(25)	(88)	(61)	(50)	(81)	(23)	(32)	(98)	(70)	(39)	(83)	(21)
Association with lactarium	-	-	-	-	-	-	15,7	30,0	55,6	61,5	73,4	84,0
							(51)	(140)	(90)	(52)	(94)	(25)
Women informed about the possibilities of donating milk at the lactarium	-	-	-	-	-	-	47,1	57,4	67,8	69,2	75,5	88,0
							(51)	(141)	(90)	(52)	(94)	(25)

Table 99a: Neonatal Screenings, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I %	IIA %	IIB %	III %	Total %	2021 I %	IIA %	IIB %	III %	Total %	p [4]
Protocol used for neonatal deafness screening [1]											
No protocol	1,0	0,0	0,0	0,0	0,4	0,0	0,0	0,0	0,0	0,0	
Automated auditory evoked potentials (AAEP) twice	29,3	28,7	25,3	34,5	29,1	24,8	29,5	26,2	35,0	27,9	0,7170[5]
Acoustic OtoEmissions (AOE) twice	51,0	37,5	39,2	18,2	41,4	58,6	36,7	41,7	25,0	44,2	
AAEP- AOE combination or other	18,7	33,8	35,5	47,3	29,1	16,6	33,8	32,1	40,0	27,9	
	(208)	(136)	(79)	(55)	(478)	(169)	(139)	(84)	(60)	(452)	
Catch-up procedure for children discharged before the screening test performed											
All newborns are tested	1,0	1,4	3,7	6,7	2,2	2,4	4,3	4,7	10,0	4,4	<,0001
No catch-up procedure	9,5	7,9	9,7	5,0	8,5	1,2	2,2	3,6	3,3	2,2	
Yes, later consultation in the maternity unit	52,4	54,3	54,9	60,0	54,3	44,1	57,5	61,9	55,0	53,0	
Yes, another structure	30,0	33,6	30,5	26,7	30,7	28,2	28,8	13,1	23,3	25,0	
Yes, in the service and other structure	7,1	2,8	1,2	1,6	4,3	20,0	5,0	13,1	5,0	12,1	
Yes, another procedure	-	-	-	-	-	4,1	2,2	3,6	3,3	3,3	
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Timing of routine neonatal blood screening for early discharge [2,3]											
Before discharge (D2)	-	-	-	-	-	77,6	67,2	80,7	79,7	75,2	
Back to the maternity unit	70,8	66,7	61,3	70,2	68,0	13,3	21,9	14,5	15,3	16,4	<,0001
At home, by a community midwife	70,3	71,4	72,0	73,7	71,3	52,7	54,7	51,8	47,5	52,5	<,0001
Another procedure	3,6	7,1	12,0	7,0	6,4	1,2	3,6	2,4	5,1	2,7	0,0080
	(195)	(126)	(75)	(57)	(453)	(165)	(137)	(83)	(59)	(444)	

(1) In 2016: newborn without risk factors
(2) 9 maternity units report that they do not perform early discharge
(3) Several possible answers
(4) Test comparing the total distribution in 2016 with that in 2021
(5) "No protocol" answer ignored for the test

Table 99b: Neonatal Screenings, by the number of deliveries

(Metropolitan France, not including birth centers)

Annual number of deliveries	2016						2021					
	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Protocol used for neonatal deafness screening [1]												
No protocol	1,8	0,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Automated auditory evoked potentials (AAEP) twice	14,0	25,9	30,9	41,0	28,4	48,0	13,7	22,1	32,2	44,2	27,7	40,0
Acoustic OtoEmissions (AOE) twice	63,2	51,0	39,2	27,9	30,5	20,0	66,7	50,0	44,4	36,5	35,1	16,0
AAEP- AOE combination or other	21,1	22,4	29,9	31,1	41,1	32,0	19,6	27,9	23,3	19,2	37,2	44,0
	(57)	(143)	(97)	(61)	(95)	(25)	(51)	(140)	(90)	(52)	(94)	(25)
Catch-up procedure for children discharged before the screening test performed												
All newborns are tested	0,0	0,7	1,0	1,5	7,1	3,7	3,9	2,8	4,4	3,8	6,4	8,0
No catch-up procedure	8,6	6,8	11,2	7,7	9,2	7,4	0,0	1,4	2,2	1,9	2,1	12,0
Yes, later consultation in the maternity unit	58,6	52,1	53,1	53,9	51,0	74,1	39,2	56,0	56,7	50,0	54,3	52,0
Yes, another structure	22,4	34,9	32,7	35,4	28,6	14,8	29,4	24,1	24,5	30,8	21,3	24,0
Yes, in the service and other structure	10,3	5,5	2,0	1,5	4,1	0,0	25,5	10,7	12,2	9,6	10,6	4,0
Yes, another procedure	-	-	-	-	-	-	2,0	5,0	0,0	3,8	5,3	0,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Timing of routine neonatal blood screening for early discharge [2,3]												
Before discharge (D2)	-	-	-	-	-	-	77,1	72,9	69,0	86,0	78,7	72,0
Back to the maternity unit	78,6	73,1	64,7	68,9	56,5	68,0	22,9	18,6	17,2	10,0	12,8	16,0
At home, by a community midwife	67,9	62,7	70,6	72,1	80,4	92,0	45,8	52,9	57,5	44,0	52,1	64,0
Another procedure	1,8	8,2	7,1	4,9	7,6	4,0	2,1	2,1	1,1	6,0	4,3	0,0
	(56)	(134)	(85)	(61)	(92)	(25)	(48)	(140)	(87)	(50)	(94)	(25)

(1) In 2016: newborn without risk factors

(2) 9 maternity units report that they do not perform early discharge

(3) Several possible answers

Table 100a: Accompaniment at home, by the type of authorization

(Metropolitan France, not including birth centers)

Type of authorization	2016 I	2016 IIA	2016 IIB	2016 III	2016 Total	2021 I	2021 IIA	2021 IIB	2021 III	2021 Total	p [1]
	%	%	%	%	%	%	%	%	%	%	
Home accompaniment offered after discharge from the maternity unit, for mothers and children who are doing well											
Visit from a private midwife as part of the Program of accompaniment of return to home (PRADO)	75,7	86,4	91,5	93,3	83,5	56,5	60,4	70,2	71,7	62,3	<,0001
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
Visit from a private midwife (PRADO excluded)	65,4	72,1	75,6	76,7	70,4	88,8	85,6	94,0	88,3	88,7	<,0001
	(208)	(140)	(82)	(60)	(490)	(170)	(139)	(84)	(60)	(453)	
Visit from a maternity unit's midwife	2,4	7,2	2,4	10,2	4,7	4,1	2,2	2,4	10,0	4,0	0,5833
	(210)	(138)	(82)	(59)	(489)	(170)	(139)	(84)	(60)	(453)	
Visit from a Maternal and child protection (PMI) midwife or a specialized childcare attendant	66,2	68,6	62,2	62,7	65,8	80,6	84,2	79,8	85,0	82,1	<,0001
	(210)	(140)	(82)	(59)	(491)	(170)	(139)	(84)	(60)	(453)	
Other type of support	21,3	24,0	23,8	21,4	22,5	15,9	14,4	19,0	8,5	15,0	0,0042
	(202)	(125)	(80)	(56)	(463)	(164)	(132)	(79)	(59)	(434)	
Maternity/city liaison form systematically given to the woman at the time of her discharge	61,0	56,4	62,2	78,3	62,0	87,1	88,5	91,7	93,3	89,2	<,0001
	(210)	(140)	(82)	(60)	(492)	(170)	(139)	(84)	(60)	(453)	
If yes, contact information of a maternity professional mentionned	69,5	65,8	72,5	61,7	67,9	68,9	59,3	58,4	55,4	62,1	0,1136
	(128)	(79)	(51)	(47)	(305)	(148)	(123)	(77)	(56)	(404)	

(1) Test comparing the total distribution in 2016 with that in 2021

Table 100b: Accompaniment at home, by the number of deliveries

(Metropolitan France, not including birth centers)

Annual number of deliveries	2016						2021					
	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500	<500	500-999	1000-1499	1500-1999	2000-3499	≥3500
	%	%	%	%	%	%	%	%	%	%	%	%
Home accompaniment offered after discharge from the maternity unit, for mothers and children who are doing well												
Visit from a private midwife as part of the Program of accompaniment of return to home (PRADO)	58,6	84,9	85,7	90,8	85,7	96,3	60,8	61,7	60,0	57,7	70,2	56,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Visit from a private midwife (PRADO excluded)	56,1	65,1	69,1	76,9	78,6	88,9	88,2	84,4	92,2	92,3	89,4	92,0
	(57)	(146)	(97)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Visit from a maternity unit's midwife	1,7	2,7	4,1	3,1	9,3	11,1	2,0	2,1	3,3	1,9	6,4	16,0
	(58)	(146)	(97)	(64)	(97)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Visit from a Maternal and child protection (PMI) midwife or a specialized childcare attendant	67,2	65,1	66,3	68,8	61,2	74,1	86,3	83,0	83,3	82,7	75,5	88,0
	(58)	(146)	(98)	(64)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
Other type of support	30,8	22,7	18,5	16,4	28,6	11,5	12,2	18,1	15,1	10,6	13,5	16,0
	(52)	(141)	(92)	(61)	(91)	(26)	(49)	(138)	(86)	(47)	(89)	(25)
Maternity/city liaison form systematically given to the woman at the time of her discharge	60,3	65,1	60,2	49,2	67,3	66,7	90,2	88,7	85,6	82,7	94,7	96,0
	(58)	(146)	(98)	(65)	(98)	(27)	(51)	(141)	(90)	(52)	(94)	(25)
If yes, contact information of a maternity professional mentionned	68,6	69,5	67,8	65,6	69,7	55,6	84,8	60,8	55,8	62,8	58,4	58,3
	(35)	(95)	(59)	(32)	(66)	(18)	(46)	(125)	(77)	(43)	(89)	(24)

Table 101: The organization and supply of prenatal care in birth centers in Metropolitan France

	Birth centers
	n
Number of deliveries in 2020 (median, min-max)	92 [53 - 117]
Average number of midwives present (median, min-max)	
On weekdays	1,0 [0 - 2]
On weeknights	1,0 [0 - 2]
On weekend days	1,0 [0 - 2]
Number of midwives on call (median, min-max)	
On weekdays	1,5 [0 - 3]
On weeknights	1,5 [0 - 3]
On weekend days	1,5 [0 - 3]
Equipment for women with reduced mobility	5
Medical file	
Paper record	2
Computerized record	1
Both	3
Routine screening for coronavirus infection	0
Recourse to a psychologist	4
Recourse to a psychiatrist	2
Recourse to a child psychiatrist	2
Tobacco consultation with an outside expert	4
Alcohol consultation with an outside expert	3
Addiction consultation with an outside expert	2
Nutritional consultation with an outside expert	4
Recourse to a social worker	0
Patients systematically informed about the role and contact details of the Maternal and child protection (PMI)	2

Table 102: Childbirth and postnatal care in birth centers in metropolitan France

	Birth centers n
Birth plan	
Sometimes suggested	1
Systematically suggested	5
Existence of at least one room dedicated to less "medicalized" deliveries (physiological space)	6
If yes, number of rooms (median, min-max)	2,5 [2 - 4]
If yes, delivery is possible in this room	6
If yes, presence of a bathtub in the room	6
Information on milk donation	4
Breastfeeding staff expert	5
With specific training	4
Of which dedicated part-time	4
With possibility to contact after discharge	3
Of which team meeting facilitation	4
Neonatal deafness screening protocol	5
Catch-up procedure if neonatal deafness screening test not performed	3
Maternity/city liaison form systematically given to the woman at the time of her discharge	2

Table 103: Establishments and participations in overseas departments (including extensions)

	Guadeloup	St-Martin	Martinique	Guyane	La Réunion	Mayott
	n	n	n	n	n	n
Etablissements						
Statut						
University or regional hospital centre	1	0	2	0	2	0
Community hospital centre	1	1	0	3	2	1
Private non-profit hospital (ESPIC)	0	0	0	0	0	0
Private for profit establishment	1	0	1	1	3	0
Birth centers	1	0	0	0	1	0
Level of care of the maternity unit						
Level I	1	0	2	1	1	0
Level II A	0	0	0	1	3	0
Level II B	1	1	0	1	1	1
Level III	2	0	1	1	2	0
Number of annual deliveries						
< 500	1	0	1	1	1	0
500 - 999	1	1	1	1	0	0
1000 -1499	1	0	0	0	3	0
1500 - 1999	1	0	0	0	2	0
2000 - 3499	0	0	1	1	1	0
≥ 3500	0	0	0	1	1	1
	(4)	(1)	(3)	(4)	(8)	(1)
Length of survey fieldwork (number of	9	9	14	1	4	6
Women	678	92	825	130	1 115	1 000
Births	690	93	834	133	1 130	1 009
Questionnaire standard [1,2]						
Live births: standard questionnaire [1,2]	684	92	819	131	1 120	991
Number of women involved	672	91	811	128	1 105	982
Interview and medical data record	559	72	710	93	944	909
Interview only	8	0	2	0	3	2
Medical record only [3]	50	10	52	35	128	66
Minimum questionnaire [3]	45	7	33	0	20	4
Refusal of all parts [3]	10	2	14	0	10	1
If interview, follow-up at 2 months	516	72	653	81	850	-
If interview, 2-month follow-up performed	356	45	427	39	566	-

(1) In case of pultiple births with different outcomes (e.g. MTP and live birth), the woman is counted for the live birth

(2) Opposition possible to all parts, including the minimum questionnaire

(3) Reasons for not attending the interview (2 choices possible):

Health status of the child (n=33), health status of the mother (n=44), early maternity leaving (n=31), lack of french language skills (n=51), refusal (n=314), other reason (n=18), reason not specified (n=28)

Table 104: Selection of indicators on maternal characteristics, antenatal care and delivery in Guadeloupe
(Live births)

	Guadeloupe				Metropolitan France		
	n	%	95% CI	p	n	%	95% CI
Maternal age (mean ± standard deviation) [1]	31,4 ± 6,1 (613)				30,9 ± 5,3 (12 082)		
Education level > bachelor's degree [1]	256 (561)	45,6	41,5 - 49,9	<,0001	6 501 (10 940)	59,4	58,5 - 60,4
Monthly income < 1000 € net [1]	176 (526)	33,5	29,4 - 37,7	<,0001	774 (10 379)	7,5	7,0 - 8,0
Main care provider of antenatal care [1]							
Obstetrician-gynecologist	284	50,9	46,7 - 55,1	<,0001	5 609	51,5	50,6 - 52,5
Midwife	155	27,8	24,1 - 31,7		4 249	39,0	38,1 - 40,0
Other	79	14,2	11,4 - 17,3		671	6,2	5,7 - 6,6
Several professionals	40 (558)	7,2	5,2 - 9,6		356 (10 885)	3,3	2,9 - 3,6
Early prenatal interview (EPP) [1]	214 (564)	37,9	33,9 - 42,1	0,4804	3 985 (10 925)	36,5	35,6 - 37,4
If EPP, professional who conducted it							
Midwife at the hospital	19	9,0	5,5 - 13,6	<,0001	1 330	33,9	32,5 - 35,5
Midwife in private practice	149	70,3	63,6 - 76,4		2 279	58,2	56,6 - 59,7
Maternal and child Protection midwife	23	10,8	7,0 - 15,8		189	4,8	4,2 - 5,5
Obstetrician-gynecologist	21 (212)	9,9	6,2 - 14,7		120 (3 918)	3,1	2,6 - 3,7
Induced labour [1]	146 (608)	24,0	20,7 - 27,6	0,3157	3 111 (12 041)	25,8	25,1 - 26,6
Cesarean [1]	109 (629)	17,3	14,5 - 20,5	0,0147	2 629 (12 284)	21,4	20,7 - 22,1
Prematurity [2]	63 (619)	10,2	7,9 - 12,8	0,0032	862 (12 235)	7,0	6,6 - 7,5
Exclusive breastfeeding [3]	262 (497)	52,7	48,2 - 57,2	0,1178	5 494 (9 761)	56,3	55,3 - 57,3

(1) Denominator: number of women
(2) Denominator: number of live births
(3) Denominator: number of children not transfered to NCIU or neonatal unit

Table 105: Selection of indicators on maternal characteristics, antenatal care and delivery in Saint-Martin
(Live births)

	Sanit-Martin				Metropolitan France		
	n	%	95% CI	p	n	%	95 % CI
Maternal age (mean ± standard deviation) (1)	30,3 ± 5,7				30,9 ± 5,3		
	(82)				(12 082)		
Education level > bachelor's degree (1)	36	50,0	38,0 - 62,0	0,1046	6 501	59,4	58,5 - 60,4
	(72)				(10 940)		
Monthly income < 1000 € net (1)	21	30,4	19,9 - 42,7	<,0001	774	7,5	7,0 - 8,0
	(69)				(10 379)		
Main care provider of antenatal care (1)							
Obstetrician-gynecologist	33	46,5	34,6 - 58,7	0,3960	5 609	51,5	50,6 - 52,5
Other or several professionals	38	53,5	41,3 - 65,5		5 276	48,5	47,5 - 49,4
	(71)				(10 885)		
Induced labour (1)	18	22,0	13,6 - 32,5	0,4229	3 111	25,8	25,1 - 26,6
	(82)				(12 041)		
Cesarean (1)	25	30,1	20,5 - 41,2	0,0538	2 629	21,4	20,7 - 22,1
	(83)				(12 284)		
Exclusive breastfeeding (2)	36	61,0	47,4 - 0,0	0,4650	5 494	56,3	55,3 - 57,3
	(59)				(9 761)		

(1) Denominator: number of women
(2) Denominator: number of children not transfered to NCIU or neonatal unit

Table 106: Selection of indicators on maternal characteristics, antenatal care and delivery in Martinique
(Live births)

	Martinique				Metropolitan France		
	n	%	95 % CI	p	n	%	95 % CI
Maternal age (mean ± standard deviation) [1]	31,0 ± 6,4				30,9 ± 5,3		
	(764)				(12 082)		
Education level > bachelor's degree [1]	383	53,9	50,1 - 57,6	0,0035	6 501	59,4	58,5 - 60,4
	(711)				(10 940)		
Monthly income < 1000 € net [1]	166	25,1	21,8 - 28,6	<,0001	774	7,5	7,0 - 8,0
	(662)				(10 379)		
Main care provider of antenatal care [1]							
Obstetrician-gynecologist	305	43,3	39,6 - 47,0	<,0001	5 609	51,5	50,6 - 52,5
Midwife	297	42,1	38,5 - 45,9		4 249	39,0	38,1 - 40,0
Other professional	61	8,7	6,7 - 11,0		671	6,2	5,7 - 6,6
Several professionals	42	6,0	4,3 - 8,0		356	3,3	2,9 - 3,6
	(705)				(10 885)		
Early prenatal interview (EPP) [1]	259	36,4	32,9 - 40,1	0,9792	3 985	36,5	35,6 - 37,4
	(711)				(10 925)		
If EPP, professional who conducted it							
Midwife at the hospital	46	17,9	13,4 - 23,1	<,0001	1 330	33,9	32,5 - 35,5
Private or maternal and child Protection midwife	192	74,7	68,9 - 79,9		2 468	63,0	61,5 - 64,5
Obstetrician-gynecologist	19	7,4	4,5 - 11,3		120	3,1	2,6 - 3,7
	(257)				(3 918)		
Induced labour [1]	226	29,7	26,4 - 33,0	0,0197	3 111	25,8	25,1 - 26,6
	(762)				(12 041)		
Cesarean [1]	147	19,0	16,3 - 22,0	0,1200	2 629	21,4	20,7 - 22,1
	(772)				(12 284)		
Episiotomy [2]	34	5,5	3,9 - 7,7	0,0148	787	8,3	7,8 - 8,9
	(614)				(9 467)		
Prematurity [3]	66	8,6	6,7 - 10,8	0,1105	862	7,0	6,6 - 7,5
	(770)				(12 235)		
Exclusive breastfeeding [4]	491	76,6	73,1 - 79,8	<,0001	5 494	56,3	55,3 - 57,3
	(641)				(9 761)		

(1) Denominator: number of women
(2) Denominator: number of women with vaginal delivery
(3) Denominator: number of live births
(4) Denominator: number of children not transfered to NCIU or neonatal unit

Table 107: Selection of indicators on maternal characteristics, antenatal care and delivery in Guyane
(Live births)

	Guyane				Metropolitan France		
	n	%	95 % CI	p	n	%	95 % CI
Maternal age (mean ± standard deviation) [1]	28,0 ± 6,9				30,9 ± 5,3		
	(128)				(12 082)		
Education level > bachelor's degree [1]	16	17,2	10,2 - 26,4	<,0001	6 501	59,4	58,5 - 60,4
	(93)				(10 940)		
Monthly income < 1000 € net [1]	38	48,1	36,7 - 59,6	<,0001	774	7,5	7,0 - 8,0
	(79)				(10 379)		
Main care provider of antenatal care [1]				0,0007			
Obstetrician-gynecologist	28	31,5	22,0 - 42,2		5 609	51,5	50,6 - 52,5
Midwife	48	53,9	43,0 - 64,6		4 249	39,0	38,1 - 40,0
Other situations [2]	13	14,6	8,0 - 23,7		1 027	9,4	8,9 - 10,0
	(89)				(10 885)		
Early prenatal interview (EPP) [1]	15	16,1	9,3 - 25,2	<,0001	3 985	36,5	35,6 - 37,4
	(93)				(10 925)		
Induced labour [1]	35	27,3	19,8 - 35,9	0,6984	3 111	25,8	25,1 - 26,6
	(128)				(12 041)		
Cesarean [1]	30	22,9	16,0 - 31,1	0,6774	2 629	21,4	20,7 - 22,1
	(131)				(12 284)		
Prematurity [3]	21	16,0	10,2 - 23,5	<,0001	862	7,0	6,6 - 7,5
	(131)				(12 235)		
Exclusive breastfeeding [4]	43	53,8	42,2 - 65,0	0,6489	5 494	56,3	55,3 - 57,3
	(80)				(9 761)		

(1) Denominator: number of women
(2) Other or several professionals
(3) Denominator: number of live births
(4) Denominator: number of children not transfered to NCIU or neonatal unit

Table 108: Selection of indicators on maternal characteristics, antenatal care and delivery in La Réunion
(Live births)

	La Réunion				Metropolitan France			
	n	%	95% CI	p	n	%	95 % CI	
Maternal age (mean ± standard deviation) [1]	29,7 ± 6,1 (1 075)				30,9 ± 5,3 (12 082)			
Education level > bachelor's degree [1]	374 (947)	39,5	36,4 - 42,7	<,0001	6 501 (10 940)	59,4	58,5 - 60,4	
Monthly income < 1000 € net [1]	224 (886)	25,3	22,5 - 28,3	<,0001	774 (10 379)	7,5	7,0 - 8,0	
Main care provider of antenatal care [1]								
Obstetrician-gynecologist	581	61,8	58,6 - 64,9	<,0001	5 609	51,5	50,6 - 52,5	
Midwife	219	23,3	20,6 - 26,1		4 249	39,0	38,1 - 40,0	
Other professionnal	82	8,7	7,0 - 10,7		671	6,2	5,7 - 6,6	
Several professionals	58 (940)	6,2	4,7 - 7,9		356 (10 885)	3,3	2,9 - 3,6	
Early prenatal interview (EPP) [1]	455 (943)	48,3	45,0 - 51,5	<,0001	3 985 (10 925)	36,5	35,6 - 37,4	
If EPP, professional who conducted it								
Midwife at the hospital	34	7,6	5,4 - 10,5	<,0001	1 330	33,9	32,5 - 35,5	
Private midwife	352	79,1	75,0 - 82,8		2 279	58,2	56,6 - 59,7	
Maternal and child protection (PMI) midwife	30	6,7	4,6 - 9,5		189	4,8	4,2 - 5,5	
Obstetrician-gynecologist	29 (445)	6,5	4,4 - 9,2		120 (3 918)	3,1	2,6 - 3,7	
Induced labour [1]	224 (1 070)	20,9	18,5 - 23,5	0,0004	3 111 (12 041)	25,8	25,1 - 26,6	
Cesarean [1]	234 (1 088)	21,5	19,1 - 24,1	0,9351	2 629 (12 284)	21,4	20,7 - 22,1	
Episiotomy [2]	39 (834)	4,7	3,4 - 6,3	0,0002	787 (9 467)	8,3	7,8 - 8,9	
Prematurity [3]	94 (1 080)	8,7	7,1 - 10,6	0,0430	862 (12 235)	7,0	6,6 - 7,5	
Exclusive breastfeeding [4]	467 (810)	57,7	54,2 - 61,1	0,4502	5 494 (9 761)	56,3	55,3 - 57,3	

(1) Denominator: number of women
(2) Denominator: number of women with vaginal delivery
(3) Denominator: number of live births
(4) Denominator: number of children not transfered to NCIU or neonatal unit

Table 109: Selection of indicators on maternal characteristics, antenatal care and delivery in Mayotte
(Live births)

	Mayotte				Metropolitan France		
	n	%	95% CI	p	n	%	95 % CI
Maternal age (mean ± standard deviation) [1]	28,2 ± 6,7 (976)				30,9 ± 5,3 (12 082)		
Education level > bachelor's degree [1]	125 (911)	13,7	11,6 - 16,1	<,0001	6 501 (10 940)	59,4	58,5 - 60,4
Monthly income < 1000 € net [1]	348 (579)	60,1	56,0 - 64,1	<,0001	774 (10 379)	7,5	7,0 - 8,0
Main care provider of antenatal care [1]				<,0001			
Obstetrician-gynecologist	11	1,2	0,6 - 2,2		5 609	51,5	50,6 - 52,5
Midwife	375	41,8	38,5 - 45,1		4 249	39,0	38,1 - 40,0
Other or several professionals	512 (898)	57,0	53,7 - 60,3		1 027 (10 885)	9,4	8,9 - 10,0
Early prenatal interview (EPP) [1]	16 (911)	1,8	1,0 - 2,8	<,0001	3 985 (10 925)	36,5	35,6 - 37,4
Induced labour [1]	107 (974)	11,0	9,1 - 13,1	<,0001	3 111 (12 041)	25,8	25,1 - 26,6
Cesarean [1]	134 (984)	13,6	11,5 - 15,9	<,0001	2 629 (12 284)	21,4	20,7 - 22,1
Episiotomy [2]	14 (844)	1,7	0,9 - 2,8	<,0001	787 (9 467)	8,3	7,8 - 8,9
Prematurity [3]	97 (981)	9,9	8,1 - 11,9	0,0009	862 (12 235)	7,0	6,6 - 7,5
Exclusive breastfeeding [4]	420 (522)	80,5	76,8 - 83,8	<,0001	5 494 (9 761)	56,3	55,3 - 57,3

(1) Denominator: number of women
(2) Denominator: number of women with vaginal delivery
(3) Denominator: number of live births
(4) Denominator: number of children not transfered to NCIU or neonatal unit

APPENDICES

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France ARTZNER

Appendix 3 : Birth questionnaire

2021 ENP

Birth questionnaire

WOMEN PARTICIPATING IN THE INTERVIEW

A1a - Child's date of birth *(dd/mm)* ..... D D / M M

INTERVIEW WITH THE MOTHER

A1b - Date of interview *(dd/mm)* ..... D D / M M

Ask the questions as they are written. Only read answers if the response is in bold.

SOCIODEMOGRAPHIC SITUATION

Thank you for agreeing to participate in the survey.
If a question bothers you, you do not have to answer it.
I will start by asking you a few questions about your socio-economic situation.

B1 - What is your date of birth? *(mm/yyyy)* ..... M M / Y Y Y Y

B2 - What is your education level?

0 ☐ unschooled
1 ☐ primary school
2 ☐ junior high school (1st cycle: 6th to 3rd grade)
3 ☐ short vocational diploma (e.g. SES, SEGPA, CAP, BEP)
4 ☐ high school (general baccalaureate)
5 ☐ high school (technical baccalaureate)
6 ☐ high school (professional baccalaureate)
7 ☐ 1 or 2 years post-secondary education (e.g. DUT, BTS)
8 ☐ 3 or 4 years post-secondary education (e.g. bachelor's degree, Master)
9 ☐ 5 or more years post-secondary education (e.g. engineering degree)

B3 - What is your nationality?

1 ☐ French
2 ☐ Foreign
3 ☐ French and foreign

If foreign nationality, **B3a-** *State clearly:* .....

B4 - In which country were you born?

1 ☐ France (mainland, overseas departments and regions) 2 ☐ other country

If born outside of France,
B4a - *State the country clearly:* .....
B4b - In which year did you arrive in France? .....

B5 - Are you currently in a relationship?

1 ☐ **yes, with a person who lives in the same dwelling as you**
2 ☐ **yes, with a person who does not live in the same dwelling as you**
3 ☐ **no, you are single**

If yes,
B6 - Your partner is:
1 ☐ **a man**
2 ☐ **a woman**

B7 - Are you married or in a civil union? ..... 0 ☐ no 1 ☐ married 2 ☐ in a union civil

B8 - What is your current or last profession?
By being as precise as possible, e.g agricultural worker, category B secretary, computer technician, computer engineer *(note "without profession" if none)*

B8a - In your current or last employment, were you:

1 ☐ self-employed (including company manager or salaried company manager)
2 ☐ paid employee or trainee of the public service (State, territorial, hospital)
3 ☐ paid employee or trainee of another employer (company, association)
4 ☐ you helped someone with their work without being paid

B9 - Did you work during your pregnancy? ..... 0 ☐ no 1 ☐ yes

If yes → **B9a -** When did you interrupted your work, that is, without taking it again until childbirth? *(dd/mm/yy)* ..... D D / M M / Y Y

B10 - At the end of your pregnancy, were you?

1 ☐ in active employment until your leave (maternity or other)
2 ☐ on full-time parental leave
3 ☐ unemployed, jobseeker, or looking for work
4 ☐ student *(including training course)*
5 ☐ homemaker
6 ☐ in another situation, *state* .....

If working (answer 1), → **B10a -** Were you working?
☐ full-time
☐ part-time (80%)
☐ part-time (50%)
☐ part-time (less than 50%)
☐ in another situation, *state* .....

B11 - During your pregnancy, what were your sources of household income (for all the people sharing the dwelling)? *(several answers possible)*

B11a - salary or income from professional activity *(including employment bonus, "prime d'activité")* ..... 0 ☐ no 1 ☐ yes
B11b - unemployment benefits ..... 0 ☐ no 1 ☐ yes
B11c - welfare (RSA) ..... 0 ☐ no 1 ☐ yes
B11d - other resources (disability allowance, AAH, ASS) ..... 0 ☐ no 1 ☐ yes
(exclude AJE, family child allowance, and rent assistance)
State .....
B11e - no resources ..... 0 ☐ no 1 ☐ yes

B12 - During your pregnancy, what was your average net monthly household income in euros after withholding tax, taking into account all sources of income (wages, RSA, unemployment benefits, family child allowance, income from assets, etc.)?
(use a monthly average if income is variable) .....

B12a - *If the amount is not given,* suggest the following ranges:

☐ less than 500 € per month
☐ less than 1,000 €
☐ less than 1,500 €
☐ less than 2000 €
☐ less than 3000 €
☐ less than 4000 €
☐ less than 6000 €
☐ less than 8000 €
☐ 8.000 € or more
☐ you do not know
☐ you do not wish to respond

B13 - How would you describe your current financial situation?

1 ☐ you cannot manage without going into debt
2 ☐ you manage with difficulty
3 ☐ it is tight, so you have to be careful
4 ☐ it's OK
5 ☐ you are rather comfortable
6 ☐ you are really comfortable

B14 - At the start of your pregnancy, what type of health insurance did you have to cover your health expenses?

1 ☐ state medical care (AME: Aide Médicale d'Etat)
2 ☐ social security managed by the CPAM or another fund known as universal health protection (PUMA)
3 ☐ foreign health insurance or private insurance
4 ☐ none

B15 - At the start of your pregnancy, did you have complementary health insurance?

1 ☐ complementary health solidarity fund (CSS) (formerly, complementary universal health insurance (CMU-C) and payment assistance for complementary health insurance, ACS)
2 ☐ private health insurance or provident health insurance
3 ☐ no complementary health insurance

B16 - In the third trimester of your pregnancy, where did you mainly live?

1 ☐ in a private dwelling (tenant or owner)
2 ☐ with your family or friends
3 ☐ in a hotel, hostel or shelter
4 ☐ in another place, *state* .....

If answer 2 to 4,

B16a - When you leave the maternity ward, where will you live?

1 ☐ in a private dwelling (tenant or owner)
2 ☐ with your family or friends
3 ☐ in a hotel, hostel or shelter
4 ☐ in another place, *state* .....

B17 - In the third trimester of your pregnancy, how many adults and children lived in this dwelling? ..... ☐☐

B17a - Including how many children under the age of 14 years *(excluding the newborn)* ..... ☐☐

PRE-PREGNANCY HEALTH

I will now ask you a few questions about your health before your pregnancy.

C1 - Have you already used contraception such as the pill, condom, or withdrawal method to avoid becoming pregnant? ..... 0 ☐ no 1 ☐ yes

C1a - What was the last method used?
(state all the methods; select two methods if combined)

If yes,

1 ☐ pill
2 ☐ IUD
3 ☐ implant
4 ☐ patch
5 ☐ vaginal ring
6 ☐ condom (male or female)
7 ☐ withdrawal
8 ☐ periodic abstinence (e.g., temperature, date, Ogino or Billings method)
9 ☐ another method, *state* .....

C1b- You stopped using this contraceptive method because, *(state all the reasons; two answers possible)*

1 ☐ you wanted to fall pregnant
2 ☐ you were pregnant
3 ☐ you stopped after a previous pregnancy and did not resume contraceptive use
4 ☐ you wanted a non-hormonal method
5 ☐ the method did not suit you for another reason
6 ☐ another reason, *state* .....

C2 - Did you consult a doctor or midwife before planning this pregnancy? ☐ no ☐ yes

If yes,

C2a - Why? *(state all the reasons, two answers possible)*

1 ☐ to stop your contraception
2 ☐ for an infertility check-up or treatment
3 ☐ for medical advice about health problems or treatment changes
4 ☐ for advice, to discuss your pregnancy plan
5 ☐ other, *state* .....

C3 - For this pregnancy, did you undergo fertility treatment to become pregnant? ☐ no ☐ yes

If yes,

C3a - What type of fertility treatment?

1 ☐ **in vitro fertilisation** (with or without ICSI)
2 ☐ **egg donation**
3 ☐ **artificial insemination**
4 ☐ **ovulation induction alone** (medication to simulate ovulation)
5 ☐ **other,** *state* .....

C4 - During your pregnancy, did you forgo consultations, medical examinations, or dental care because you could not pay the fees? 0 ☐ no 1 ☐ yes

C5 - Did you decide how to feed your baby before giving birth (i.e., breastmilk or formula)? 0 ☐ no 1 ☐ yes

➔ *If no, go to question D1*

If yes,

C5a - When did you decide how to feed your baby?

1 ☐ before your pregnancy
2 ☐ during your pregnancy
3 ☐ you cannot remember

C5b - What type of milk did you choose for your baby?

1 ☐ breastmilk
2 ☐ infant formula
3 ☐ mixed feeding (breastmilk and infant formula)

➔ *If infant formula (answer 2), go to question D1*

If answer 1 or 3

C5c - How long did you intend to breastfeed?

1 ☐ less than 1 month
2 ☐ btw 1 and 3 months
3 ☐ btw 4 and 6 months
☐ more than 6 months
☐ as long as possible
☐ you did not have a definite idea

PREGNANCY

Let us now turn to what happened during your pregnancy

D1 - When you found out that you were pregnant:

1 ☐ you were happy about the timing of this pregnancy
2 ☐ you would have liked to fall pregnant earlier
3 ☐ you would have liked to fall pregnant later
4 ☐ you would have preferred not to be pregnant

D2 - On a psychological level, how did you feel during your pregnancy?

1 ☐ good 2 ☐ quite good 3 ☐ quite bad 4 ☐ bad

D3 - During your pregnancy, did you experience a period of more than 2 weeks when you felt sad, depressed, or helpless? ☐ no ☐ yes

D4 - During your pregnancy, did you experience a period of more than 2 weeks when you lost interest in most things like hobbies, work, or other activities that normally make you happy? ☐ no ☐ yes

D5 - Concerning your family and friends, would you say that during your pregnancy you were:

1 ☐ **very well supported**
2 ☐ **well supported**
3 ☐ **somewhat supported**
4 ☐ **not at all supported**
5 ☐ you do not wish to respond

D6 - In which month did you begin to monitor your pregnancy? *(Jan = 01)* ..... ☐☐

D7 - Did you consult at least once in the maternity ward in which you gave birth or with a member of the medical team in this maternity ward?
(excluding the pre-anaesthetic consultation)
(if a private consultation with an obstetrician-gynaecologist, choose 1)? ..... 0 ☐ no 1 ☐ yes

D8 - During the first 6 months of your pregnancy, who did you consult the most frequently <u>for the monitoring of your pregnancy</u>?

1 ☐ **gynaecologist or obstetrician in private practice or a private hospital** (or several)
2 ☐ **gynaecologist or obstetrician in a public hospital** (or several)
3 ☐ **general practitioner** (or several)
4 ☐ **midwife in private practice** (or several)
5 ☐ **midwife in a maternity hospital**
6 ☐ **midwife** (or several) **in a Local Perinatal Centre (CPP)**
7 ☐ **doctor** (or several) **in a Local Perinatal Centre (CPP)**
8 ☐ **doctor or midwife at the PMI (Mother and Infant Protection service)** (or several)

D9 - During your pregnancy, did you consult a medical professional in an emergency context or without an appointment for a pregnancy-related reason? ..... 0 ☐ no 1 ☐ yes

If yes,
D9a - How many times in a maternity ward, emergency maternity unit, or the emergency services of another hospital? ..... ☐☐
D9b - How many times at a doctor's practice? ..... ☐☐

D10 - During your pregnancy, did you consult a healthcare provider for psychological problems such as a psychologist, psychotherapist, or doctor? .....
0 ☐ no 1 ☐ yes

If yes, **Whom did you consult:**
D10a - psychiatrist ..... 0 ☐ no 1 ☐ yes
D10b - general practitioner ..... 0 ☐ no 1 ☐ yes
D10c - another doctor ..... 0 ☐ no 1 ☐ yes
D10d - psychologist or psychotherapist ..... 0 ☐ no 1 ☐ yes
D10e - another healthcare provider ..... 0 ☐ no 1 ☐ yes
state .....

D11 - Did you see a social worker during your pregnancy? ..... 0 ☐ no 1 ☐ yes

D12 - Did you see a dietician or health worker to manage your diet during your pregnancy? (consultation or information meeting) 0 ☐ no 1 ☐ yes

D13 - Did you receive home visits from a midwife? ..... 0 ☐ no 1 ☐ yes

D14 - Did you receive the maternity booklet? (show the cover) ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

D14a - How did you obtain a copy?

If yes,
1 ☐ **from your doctor or midwife in private practice**
2 ☐ **from the maternity ward that you visited**
3 ☐ **from the PMI or your health insurance (in person, by mail, email, or the internet)**
4 ☐ **you do not know**

D15 - Did you have a long consultation with a midwife or doctor, known as the "early prenatal interview" or "4th month interview", either individually or with your partner? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

➔ *If no or unsure, go to question D16*

If yes,

D15a - Who interviewed you?

1 ☐ midwife in a maternity ward
2 ☐ midwife in private practice
3 ☐ PMI midwife (PMI: Mother and Infant Protection service)
4 ☐ gynaecologist-obstetrician
5 ☐ another healthcare provider, *state* .....

D15b - In which month did it occur? *(jan = 01)* ..... ☐☐

D15c - At the end of this consultation, were you advised to make an appointment with a professional not involved in the medical monitoring of your pregnancy (e.g., social worker, psychologist, specialist in tobacco, alcohol, or drug consumption) ..... 0 ☐ no 1 ☐ yes

D16 - Did you take childbirth classes during this pregnancy?

0 ☐ no
1 ☐ yes, in a private practice
2 ☐ yes, at the maternity ward
3 ☐ yes, in a private practice and at the maternity ward
4 ☐ other, *state* .....

If yes,

D16a - How many? ..... ☐☐

D16b - Did your partner participate in at least one of these classes? ..... 0 ☐ no 1 ☐ yes

The following questions relate to your experiences with the healthcare providers whom you met during your pregnancy (e.g., doctors, midwives, nurses, physiotherapists, dieticians, or any other healthcare providers). Can you say how easy or difficult it was to do each of the following?

The possible answers are:

1: cannot do or always difficult
2: usually difficult
3: sometimes difficult
4: usually easy
5: always easy

D17 - Have good discussions about your health with doctors or midwives

1 ☐ cannot do or always difficult
2 ☐ usually difficult
3 ☐ sometimes difficult
4 ☐ usually easy
5 ☐ always easy

D18 - Discuss things with healthcare providers until you understand all you need to

1 ☐ cannot do or always difficult
2 ☐ usually difficult
3 ☐ sometimes difficult
4 ☐ usually easy
5 ☐ always easy

D19 - Ask healthcare providers questions to get the health information you need

1 ☐ cannot do or always difficult
2 ☐ usually difficult
3 ☐ sometimes difficult
4 ☐ usually easy
5 ☐ always easy

D20 - Make sure that healthcare providers understand your situation properly

1 ☐ cannot do or always difficult
2 ☐ usually difficult
3 ☐ sometimes difficult
4 ☐ usually easy
5 ☐ always easy

D21 - Feel able to discuss your health concerns with a healthcare provider

1 ☐ cannot do or always difficult
2 ☐ usually difficult
3 ☐ sometimes difficult
4 ☐ usually easy
5 ☐ always easy

YOUR HEALTH, EXAMINATIONS, AND PREVENTION DURING YOUR PREGNANCY

E1a - How much did you weigh before this pregnancy? (in kg) ..... ☐☐☐

E1b - And at the end of this pregnancy? (in kg) ..... ☐☐☐

E2 - What is your height? (in cm) ..... ☐☐☐

E3 - How many ultrasounds did you have <u>in total</u> (regardless of the place and reason, including the emergency room and private practice)? ..... ☐☐

E4 - At the first trimester ultrasound, was the nuchal translucency / scan measured to assess the risk of Down syndrome? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

E5 - Did you have a blood test to screen for Down syndrome? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

If yes,

E5a - Which screening test was performed?

1 ☐ only serum marker screening in the first or second trimester with a result presented as 1 out of …
2 ☐ DNA analysis of the foetus (i.e., non-invasive prenatal testing (NIPT))
3 ☐ both serum marker screening and NIPT
4 ☐ you do not know

If no,

E5b - Why were you not screened?

1 ☐ not proposed
2 ☐ personal refusal
3 ☐ late consultation/non-monitored pregnancy or overseas
4 ☐ amniocentesis from the outset (trophoblast biopsy)
5 ☐ other reason, state .....
6 ☐ you do not know

E6 - Did you have the following examinations?

1 ☐ amniocentesis
2 ☐ trophoblast biopsy
3 ☐ none of these examinations
4 ☐ you do not know

E7 - Around one year before the start of your pregnancy, did you smoke cigarettes?
(i.e., "standard" cigarettes or rolling tobacco, excluding e-cigarettes) ..... 0 ☐ no 1 ☐ yes

If yes, **E7a -** How many cigarettes did you smoke per day on average? ..... ☐☐

E8 - When you found out that you were pregnant, were you smoking?
(i.e., "standard" cigarettes or rolling tobacco, excluding e-cigarettes) ..... 0 ☐ no 1 ☐ yes

If yes, **E8a -** How many cigarettes did you smoke per day on average? ..... ☐☐

E9 - - In the third trimester, how many cigarettes did you smoke per day on average ***(i.e., "standard" cigarettes or rolling tobacco, excluding e-cigarettes, no cigarettes = 00)*** .....

E10 - Around one year before the start of your pregnancy, did you smoke cannabis at least once? 0 ☐ no 1 ☐ yes

If yes,

E10a - How often?

1 ☐ Less than once a month
2 ☐ 1 to 2 times per month
3 ☐ 3 to 5 times per month
4 ☐ 6 to 9 times per month
5 ☐ at least 10 times per month

E11 - During your pregnancy, did you smoke cannabis, even occasionally? ..... 0 ☐ no 1 ☐ yes

n
o

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If yes,

E11a - How often?

1 ☐ Less than once a month
2 ☐ 1 to 2 times per month
3 ☐ 3 to 5 times per month
4 ☐ 6 to 9 times per month
5 ☐ at least 10 times per month

E12 - Around one year before the start of your pregnancy, how often did you drink alcohol (beer, wine, spirits, champagne, etc.)?

1 ☐ never
2 ☐ once a month or less
3 ☐ 2 to 4 times per month
4 ☐ 2 to 3 times per week
5 ☐ 4 times per week or more, but not every day
6 ☐ everyday

If answer 2 to 6

E12a - Around one year before the start of your pregnancy, how many standard drinks did you consume in a week when you drank alcohol (including the weekend)?

1 ☐ less than a glass
2 ☐ 1 to 4 glasses
3 ☐ 5 to 10 glasses
4 ☐ 11 to 13 glasses
5 ☐ 14 glasses or more

E13 - When you found out that you were pregnant, how often did you drink alcohol?

1 ☐ never
2 ☐ once a month or less
3 ☐ 2 to 4 times per month
4 ☐ 2 to 3 times per week
5 ☐ 4 times per week or more, but not every day
6 ☐ everyday

If answer 2 to 6

E13a- When you found out that you were pregnant, how many standard drinks did you consume in a week when you drank alcohol (including the weekend)?

1 ☐ less than a glass
2 ☐ 1 to 4 glasses
3 ☐ 5 to 10 glasses
4 ☐ 11 to 13 glasses
5 ☐ 14 glasses or more

E13b - When you found out that you were pregnant, how often did you drink three or more alcoholic beverages on the same day, including for special occasions (i.e., birthday, marriage)?

1 ☐ never
2 ☐ less than once a month
3 ☐ once a month
4 ☐ once a week
5 ☐ every day or almost

E14 - During the pregnancy, were you screened for diabetes? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

E15 - Do your parents, brothers, sisters, or children have diabetes (type 1 or type 2)? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

E16 - During your pregnancy or in the previous 3 years, were you screened for cervical cancer? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

If yes,

E16a - Did you have a cervical smear?

0 ☐ no
1 ☐ yes, in the 3 years preceding the pregnancy
2 ☐ yes, during this pregnancy
3 ☐ yes, in the 3 preceding years and during this pregnancy
4 ☐ you do not know

E16b - Did you perform vaginal self-sampling?

0 ☐ no
1 ☐ yes, in the 3 years preceding the pregnancy
2 ☐ yes, during this pregnancy
3 ☐ yes, in the 3 preceding years and during this pregnancy
4 ☐ you do not know

E17 - During your pregnancy, were you offered or advised to be vaccinated against the flu? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

E18 - Were you vaccinated against the flu during your pregnancy? ..... 0 ☐ no 1 ☐ yes

If yes,

E18a - Who prescribed the vaccine?

1 ☐ gynaecologist/obstetrician
2 ☐ midwife
3 ☐ general practitioner
4 ☐ pharmacist
5 ☐ occupational health doctor
6 ☐ other, state .....

If no,

E18b - Why?

E18b1 - It was not offered ..... 0 ☐ no 1 ☐ yes
E18b2 - You were worried about the adverse effects of the vaccine on your baby ..... 0 ☐ no 1 ☐ yes
E18b3 - You were worried about the adverse effects of the vaccine on you ..... 0 ☐ no 1 ☐ yes
E18b4 - You were not worried about having the flu ..... 0 ☐ no 1 ☐ yes
E18b5 - You do not like vaccines in general ..... 0 ☐ no 1 ☐ yes
E18b6 - Other, state ..... 0 ☐ no 1 ☐ yes

E19 - During your pregnancy, did you receive advice about limiting the transmission of cytomegalovirus (CMV)? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

E20 - For this pregnancy, did you take vitamin B9 (folic acid or folates) or special pregnancy multivitamins? ..... 0 ☐ no 1 ☐ yes 2 ☐ unsure

If yes,

E20a - When did you begin taking them?

1 ☐ three months or more before the pregnancy
2 ☐ one or two months before the pregnancy
3 ☐ in the first month of pregnancy
4 ☐ between the second and third months of pregnancy
5 ☐ after 3 months of pregnancy
6 ☐ you do not remember

E21 - During your pregnancy, did a healthcare provider ask you if you smoked? 0 ☐ no 1 ☐ yes 2 ☐ unsure

If yes,

E21a - What did they recommend?

0 ☐ you were not given any advice as you do not smoke
1 ☐ you were not given any advice
2 ☐ you were given advice about how to quit smoking
3 ☐ you were given advice about how to cut back
4 ☐ you were told that it was possible to smoke occasionally
5 ☐ you do not know

E22 - During your pregnancy, did a healthcare provider ask you about your alcohol consumption? 0 ☐ no 1 ☐ yes 2 ☐ unsure

E23 - During your pregnancy, did a healthcare provider give you advice about your alcohol consumption?

0 ☐ you were not given any advice
1 ☐ you were told not to drink at all
2 ☐ you were given advice about how to reduce your alcohol consumption
3 ☐ you were told that it was possible to drink occasionally
4 ☐ you never drink alcohol
5 ☐ you do not know

YOUR DELIVERY AND YOUR BABY

I will now ask you a few questions about your labour.

F1- For your labour, how long did it take you to travel from your home to the maternity ward? *(in minutes) (note 999 if labour outside of the maternity ward)*? ☐☐☐

F2 - How did you travel to the maternity ward for your labour?

1 ☐ car (personal or relative/friend's vehicle)
2 ☐ public transport (bus, metro ...)
3 ☐ taxi
4 ☐ emergency transport (private ambulance, fire brigade, emergency services/SAMU)
5 ☐ other, state .....

F3 - Did you arrive at the maternity ward with special requests about your labour (e.g., being able to move about during labour, keeping personal clothes, not having an episiotomy)?

1 ☐ yes, you had written a birth project
2 ☐ yes, you had special requests but nothing written down
3 ☐ no, you did not have any special requests

If yes,

F3a - Were you able to express your requests? 0 ☐ no 1 ☐ yes

F3b - Your requests related to

F3b1 - being able to drink and/or eat 0 ☐ no 1 ☐ yes
F3b2 - being able to walk, change position, or use a ball 0 ☐ no 1 ☐ yes
F3b3 - having skin-to-skin contact with your baby 0 ☐ no 1 ☐ yes
F3b4 - limiting medical acts (episiotomy, caesarean section, oxytocin) 0 ☐ no 1 ☐ yes
F3b5 - having soft lighting and/or music 0 ☐ no 1 ☐ yes
F3b6 - wearing your own clothes 0 ☐ no 1 ☐ yes
F3b7 - giving birth without an epidural 0 ☐ no 1 ☐ yes

F3b8 - other, state .....

F4 - How did you give birth?

1 ☐ vaginal delivery
2 ☐ caesarean section before labour
3 ☐ caesarean section during labour

➔ *If caesarean section before labour (F4=2), go to question F16*

F5 - Did you drink or eat during labour, that is, in the delivery room?

1 ☐ only drank
2 ☐ only ate
3 ☐ drank and ate
4 ☐ neither drank nor ate

F6 - Before giving birth, did you want an epidural for pain relief?

0 ☐ no
1 ☐ definitely yes
2 ☐ perhaps yes, you hesitated

F7 - During labour, did you have an epidural?
(including spinal anaesthesia and spinal-epidural anaesthesia)? ..... 0 ☐ no 1 ☐ yes

If yes,

F7a - Did you have a small pump to manage the epidural reinjections yourself (PCEA, PIEB)? ..... 0 ☐ no 1 ☐ yes

F7b - How do you evaluate the effectiveness of the epidural in relieving pain?

1 ☐ perfectly effective
2 ☐ too effective
3 ☐ slightly or partially effective
4 ☐ completely ineffective
5 ☐ other, state .....

F8 - During labour, did you have something else for <u>pain relief</u>? *Ask all the questions*

F8a - medication administered by injection or perfusion ..... 0 ☐ no 1 ☐ yes
F8b - medication in tablet form ..... 0 ☐ no 1 ☐ yes
F8c - gas ..... 0 ☐ no 1 ☐ yes
F8d - non-medical approach like
F8d1 - ball, walking, choice of positions ..... 0 ☐ no 1 ☐ yes
F8d2 - bath or shower during labour ..... 0 ☐ no 1 ☐ yes
F8d3 - massage ..... 0 ☐ no 1 ☐ yes
F8d4 - hypnosis or sophrology ..... 0 ☐ no 1 ☐ yes
F8d5 - acupuncture or acupressure ..... 0 ☐ no 1 ☐ yes
F8d6 - other, state .....

F9 - Overall, are you satisfied with the pain relief or other approaches used during the contractions, regardless of the method *(including epidural analgesia)*?

1 ☐ very satisfied
2 ☐ rather satisfied
3 ☐ somewhat satisfied
4 ☐ not at all satisfied

➔ *If you had a caesarean section during labour (F4=2), go to question F16*

F10 - In which position were you when you began pushing (at the beginning of the expulsive stage of labour)?

1 ☐ on the back (stirrups, gynaecological position, footrest, etc.)
2 ☐ on the side
3 ☐ on all fours or kneeling
4 ☐ other, state .....

F11 - In which position were you when your baby was born? (when the doctor or midwife delivered your baby)?

1 ☐ on the back (stirrups, gynaecological position, footrest, etc.)
2 ☐ on the side
3 ☐ on all fours or kneeling
4 ☐ other, state .....

F12 - Who helped to deliver your baby?

1 ☐ **gynaecologist or obstetrician** (including an intern)
2 ☐ **midwife** (including an intern)
3 ☐ **another person**, state .....

We will now turn to the pain that you may have felt at the time of the delivery.

F13 - Did you have a spontaneous vaginal delivery (i.e., WITHOUT forceps, suction cap, spatulas)? ..... 0 ☐ no 1 ☐ yes **No** 1

If yes, **F13a - On a scale from 0 (no pain) to 10 (unbearable pain), which number best describes your pain level during the delivery of the baby's head?** ☐☐

F14 - Did you have an assisted vaginal delivery (i.e., WITH forceps, suction cap, spatulas)? ..... 0 ☐ no 1 ☐ yes **No** 1

If yes, **F14a - On a scale from 0 (no pain) to 10 (unbearable pain), which number best describes your pain level during the delivery of the baby's head?** ☐☐

F15 - Did you have a tear or episiotomy that required suturing? ..... 0 ☐ no 1 ☐ yes **No** 1

If yes, **F15a - On a scale from 0 (no pain) to 10 (unbearable pain), which number best describes your pain level during the suturing?** ☐☐

➔ *Go to question F19*

For women who had a caesarean section

We will now turn to the pain that you may have felt at the time of your caesarean.

F16 - On a scale from 0 (no pain) to 10 (unbearable pain), which number best describes your pain level <u>at the start of the intervention</u>? ..... ☐☐

F17 - On a scale from 0 (no pain) to 10 (unbearable pain), which number best describes your pain level <u>immediately after the delivery of your baby</u>? ..... ☐☐

➔ *If F16≥1 or F17≥1, ask question F18. If no, go to question F19*

F18 -Was your pain taken into account by the medical team in the operating theatre? ..... 0 ☐ no 1 ☐ yes

For all women

We will now turn to your baby

F19 - Did you have skin-to-skin contact with your baby?

1 ☐ **yes, in the delivery room**
2 ☐ **yes, in the operating theatre**
3 ☐ **yes, in the recovery room**
4 ☐ **yes, in the operating theatre and recovery room**
5 ☐ **no skin-to-skin contact**

F20 - Was a close relative or friend present for the birth?

0 ☐ no
1 ☐ yes, your partner
2 ☐ yes, another person

F21 - Did you try to breastfeed in the first 2 hours after the birth (including the first feed)? ..... 0 ☐ no 1 ☐ yes

F22 - Today, how is your baby fed?

1 ☐ only breastmilk (or milk bank)
2 ☐ only infant formula
3 ☐ mixed feeding (breastmilk and infant formula)
4 ☐ unknown

If answer 2 **F22a - Did you try to breastfeed?** ..... 0 ☐ no 1 ☐ yes

F23 - Since birth, has your newborn drunk any water? ..... 0 ☐ no 1 ☐ yes

F24 - Were you advised by healthcare providers to put your baby to sleep on his/her back?

0 ☐ no, never
1 ☐ yes, during the pregnancy
2 ☐ yes, after the delivery
3 ☐ yes, during the pregnancy and after the delivery
4 ☐ you do not know

I thank you for taking the time to complete this questionnaire.
Do not hesitate to ask questions or ask the maternity team for advice.
You can also consult the list of available resources provided with the information letter.

EVALUATION OF THE INTERVIEW

To be completed for all the interviewed women

N1 - Presence of another person during the face-to-face interview

0 ☐ no
1 ☐ yes, *who* .....

N2 - Progress of the face-to-face interview *(several answers possible)*

1 ☐ woman answered independently
2 ☐ woman answered with the help of a relative or friend
3 ☐ woman answered with the help of the interviewer
4 ☐ no interview

N3 - If the interview was difficult, why?

1 ☐ interruption, *state the reason* .....
2 ☐ infant's state of health
3 ☐ mother's state of health
4 ☐ language problems
5 ☐ other, *state* .....

N4 - Comments

.....

.....

.....

Contact form

Fill in a single contact form in the case of multiple births

Enquête Nationale Périnatale

Identification number of the woman in the survey: .....

1. BASIC QUESTIONNAIRE

0 ☐ no 1 ☐ yes

If yes, filling of the contact form is complete.

I would like to conclude by asking for your permission to continue the survey.

2. DO YOU AGREE TO BE CONTACTED AGAIN IN 2 MONTHS?

0 ☐ no 1 ☐ yes

(Check/compare variable P7 on page 2 of the questionnaire "Survey participation")
If the woman refuses the follow-up, the interview is finished.
Do not forget to complete later sections 2 and 3 on data linkage.

We ask you for an email address and preferably a mobile phone number, in case there is an error in the transcription of any of your contact details.

What is your email address?

@

What is your mobile phone number? .....

Would you like to participate by completing a questionnaire: ..... 1 ☐ by Internet 2 ☐ by telephone

If yes,

What is the name of your child (or firstborn)?

What is his/her birth date? ..... D D M M A A A A

What is the name of your second child?

What is the name of your second child?

Report here: Woman's surname:

Given name:

Complete the information below using the data available in the woman's medical records.

DONNÉES DU DOSSIER MÉDICAL

No translation for variables in the medical record

G1 - Date de naissance de la mère *(mm/aa)* ..... M M / A A

G2 - Adresse de la femme

G2a - Rue 1

G2b - Rue 2

G2c - Ville

G2d - Code Postal

SITUATION AVANT LA GROSSESSE

G3 - Nombre total de grossesses *(grossesse actuelle non comprise)* .....

G4 - Nombre d'accouchements *(≥ 22 SA) (accouchement actuel non compris)* .....

G5 - Nombre d'avortements spontanés *(<22SA)* .....

G6 - Nombre d'IVG .....

G7 - Nombre de GEU .....

G8 - Nombre d'IMG *(grossesse actuelle non comprise)* .....

G9 - Nombre de césariennes *(grossesse actuelle non comprise)* .....

G10 - Nombre d'enfants nés prématurés *(grossesse actuelle non comprise)* .....

G11 - Nombre d'enfants nés hypotrophes *(grossesse actuelle non comprise)* .....

G12 - Nombre d'enfants nés macrosomes *(grossesse actuelle non comprise)* .....

G13 - Nombre de mort-nés *(grossesse actuelle non comprise)* .....

G14 - Nombre de décès néonatals *(entre 0 et 27 jours) (grossesse actuelle non comprise)* .....

G15 - Hypertension antérieure à la grossesse

0 ☐ non
1 ☐ HTA chronique
2 ☐ HTA ou prééclampsie pendant une grossesse antérieure uniquement

G16 - Diabète antérieur à la grossesse

0 ☐ non
1 ☐ DID (insulino-dépendant), type 1
2 ☐ DNID (non insulino-dépendant), type 2
3 ☐ diabète gestationnel *(pour une grossesse antérieure)*

G17 - Autre(s) pathologie(s) chronique(s) sévère(s) et handicap(s) avant la grossesse

0 ☐ **non**
1 ☐ **oui,** *préciser* .....

.....

G18 - Date de début de grossesse *(jj/mm/aa)* ..... J J / M M / A A

PATHOLOGIES INFECTIEUSES PENDANT LA GROSSESSE : DÉPISTAGES

H1 - Sérologie de la syphilis au cours de la grossesse

1 ☐ oui, une fois
2 ☐ oui, plusieurs fois
3 ☐ oui, nombre de fois non précisé
4 ☐ non faite
5 ☐ information non disponible dans le dossier médical

H2 - Statut sérologique vis-à-vis de la toxoplasmose *(résultat du dernier test réalisé pendant la grossesse)*

1 ☐ absence d'anticorps (femme séronégative)
2 ☐ présence d'IgG spécifiques (femme immunisée)
3 ☐ séroconversion : positivation de la sérologie pendant la grossesse
4 ☐ statut non connu

AUTRES PATHOLOGIES ET COMPLICATIONS

I1 - Menace d'accouchement prématuré ayant nécessité une hospitalisation ..... 0 ☐ non 1 ☐ oui

Si oui,
- **I1a - Date de l'hospitalisation** *(la 1ère si plusieurs) (jj/mm)* ..... J J / M M
- **I1a.1 -** Durée totale d'hospitalisation *(en jours)* .....

I2 - Localisation placentaire au troisième trimestre ou lors de la dernière échographie

1 ☐ normalement inséré
2 ☐ bas inséré antérieur
3 ☐ bas inséré postérieur
4 ☐ bas inséré sans précision
5 ☐ recouvrant

Si réponse 2 à 5,
- **I2a -** Nombre d'hospitalisations pour métrorragies après 22SA .....

I3 - Hypertension artérielle pendant la grossesse *(systolique ≥ 140 ou diastolique ≥ 90)*

0 ☐ non
1 ☐ oui avec protéinurie *(≥ 0,3 g/l ou par 24h)*
2 ☐ oui sans protéinurie

Si oui,
- **I3a - Date au diagnostic** *(jj/mm)* ..... J J / M M
- **I3b - Hospitalisation** *(yc l'hospitalisation ayant conduit à l'accouchement)* ..... 0 ☐ non 1 ☐ oui

I4 - Diabète gestationnel

0 ☐ non
1 ☐ oui, traité par insuline
2 ☐ oui, traité par antidiabétiques oraux
3 ☐ oui, traité uniquement par régime (sans insuline)
4 ☐ oui, mais traitement inconnu

I5 - Anémie en cours de grossesse (hémoglobine < 11g/dl) ..... 0 ☐ non 1 ☐ oui

I6 - Injection intraveineuse de fer ..... 0 ☐ non 1 ☐ oui

I7 - Infection à Coronavirus pendant la grossesse ou à l'accouchement ..... 0 ☐ non 1 ☐ oui

Si oui, **I7a - Date au diagnostic** *(jj/mm)* ..... J J / M M

I8 - Mutilation sexuelle féminine ..... 0 ☐ non 1 ☐ oui

Si oui, **I8a - Si oui, quel est le type ?**

1 ☐ clitoridectomie
2 ☐ excision
3 ☐ infibulation
4 ☐ sans précision

I9 - Mention en clair dans le dossier d'une suspicion d'une anomalie de poids fœtal pendant la grossesse

0 ☐ non
1 ☐ oui, RCIU, hypotrophie, petit poids pour l'âge gestationnel, etc.
2 ☐ oui, macrosomie, gros bébé, etc.

I10 - Echographie du 2ème trimestre *(la plus proche de 22 SA)*

I10a - Age gestationnel *(en SA + jours)* ..... SA ☐☐ + J ☐

I10b - Poids fœtal estimé *(en g)* ..... ☐☐☐☐

I11 - Echographie du 3ème trimestre *(la plus proche de 32 SA)*

I11a - Age gestationnel *(en SA + jours)* ..... SA ☐☐ + J ☐

I11b - Poids fœtal estimé *(en g)* ..... ☐☐☐☐

I11c - Périmètre crânien estimé *(en mm)* ..... ☐☐☐

I11d - Périmètre abdominal estimé *(en mm)* ..... ☐☐☐

I11e - Longueur du fémur estimé *(en mm)* ..... ☐☐

I12 - Autre(s) pathologie(s) sévère(s) et complication(s) <u>en cours de grossesse</u> *(non connue(s) avant la grossesse)*

0 ☐ non
1 ☐ oui, *préciser* .....

I13 - Administration anténatale de corticoïdes pour maturation pulmonaire fœtale ..... 0 ☐ non 1 ☐ oui

Si oui, **I13a - Date de la première cure** *(jj/mm)* ..... J J / M M

I14 - Transfert in utero d'une autre maternité pour hospitalisation ou accouchement

0 ☐ non
1 ☐ oui, pour raison maternelle
2 ☐ oui, pour raison fœtale
3 ☐ oui, pour raisons maternelle et fœtale

ACCOUCHEMENT

J1 - Date et heure d'admission à la maternité *(jour/mois/heures/minutes)* ..... J J / M M / H H / M N

J2 - Age gestationnel à l'accouchement *(SA, J)* ..... SA [ ][ ] + J [ ]

J3 - Grossesse 1 ☐ unique 2 ☐ gémellaire 3 ☐ triple ou plus

J4 - Présentation 1 ☐ céphalique 2 ☐ siège 3 ☐ autre

J5 - Mode de début du travail

1 ☐ **travail spontané**
2 ☐ **déclenchement** *(y compris maturation du col seule)*
3 ☐ **césarienne avant début du travail, réalisée de façon programmée**
4 ☐ **césarienne avant début du travail, réalisée en urgence**

Si réponse 2

J5a - Date et heure au début du déclenchement ..... J J / M M / H H / M N

J5b - Méthode utilisée initialement

1 ☐ **rupture artificielle des membranes seule**
2 ☐ **oxytocine**
3 ☐ **rupture des membranes et oxytocine**
4 ☐ **maturation cervicale**

Si réponse 4

J5b1 - Technique utilisée en première intention

1 ☐ propess®
2 ☐ gel de prostaglandine
3 ☐ misoprostol
4 ☐ ballonnet
5 ☐ autre (laminaires etc), *préciser* .....

J5b2 - Technique utilisée en deuxième intention

0 ☐ pas de deuxième technique
1 ☐ propess®
2 ☐ gel de prostaglandine
3 ☐ misoprostol
4 ☐ ballonnet
5 ☐ autre (laminaires etc), *préciser* .....

Si déclenchement ou césarienne avant travail

J6a - Motif principal de déclenchement ou de césarienne avant travail	**J6b - Deuxième motif**
	0 ☐ **pas de deuxième motif**
1 ☐ **post-terme ou prévention du post-terme**	1 ☐ **post-terme ou prévention du post-terme**
2 ☐ **rupture prématurée des membranes**	2 ☐ **rupture prématurée des membranes**
3 ☐ **anomalie de la présentation**	3 ☐ **anomalie de la présentation**
4 ☐ **RCIU, petit poids pour l'âge gestationnel, hypotrophie**	4 ☐ **RCIU, petit poids pour l'âge gestationnel, hypotrophie**
5 ☐ **suspicion de macrosomie**	5 ☐ **suspicion de macrosomie**
6 ☐ **autre anomalie de la vitalité fœtale**	6 ☐ **autre anomalie de la vitalité fœtale**
7 ☐ **utérus cicatriciel**	7 ☐ **utérus cicatriciel**
8 ☐ **diabète gestationnel ou préexistant**	8 ☐ **diabète gestationnel ou préexistant**
9 ☐ **placenta prævia**	9 ☐ **placenta prævia**
10 ☐ **pathologie maternelle hypertensive, y compris pré-éclampsie**	10 ☐ **pathologie maternelle hypertensive, y compris pré-éclampsie**
11 ☐ **autre pathologie maternelle**	11 ☐ **autre pathologie maternelle**
12 ☐ **sans motif médical**	12 ☐ **sans motif médical**
13 ☐ autre, *préciser*	13 ☐ autre, *préciser* .....

J7 - Rupture de la poche des eaux

1 ☐ spontanée avant travail
2 ☐ spontanée durant le travail
3 ☐ artificielle durant le travail ou en cours de césarienne

J8 - Date et heure de rupture de la poche des eaux *(jour/mois/heures/minutes)* ..... J J / M M / H H / M N

➔ *Si césarienne avant travail, passez à la question J21*

J9 - Date et heure d'entrée en salle de naissance pour l'accouchement ..... J J / M M / H H / M N

J10 - Dilatation cervicale à l'entrée en salle de naissance pour l'accouchement
(en cm, noter 00 si col fermé, 10 si dilatation complète) .....

J11 - Ocytociques pendant le travail ..... 0 ☐ non 1 ☐ oui

Si oui,
- **J11a - Date et heure au début du traitement** ..... J J / M M / H H / M N
- **J11b - Dilatation cervicale à la mise en place de l'ocytocine pendant le travail** *(en cm)* .....

J12 - Analgésie pendant le travail
(Si PCEA ou PIEB sans autre indication dans le dossier, cocher péridurale)

0 ☐ aucune
1 ☐ péridurale
2 ☐ rachianalgésie
3 ☐ péri-rachi combinée (ou rachi-péri séquentielle)
4 ☐ analgésie parentérale
5 ☐ autre, *préciser* .....

Si réponse 1 à 3
- **J12a - Date et heure lors de la pose** ..... J J / M M / H H / M N
- **J12b - Dilatation à la pose de la péridurale** *(en cm)* .....

J13 - Date et heure de la dilatation à 5 cm *(début de la phase active)* ..... J J / M M / H H / M N

J13a - S'agit-il ?
1 ☐ de l'heure exacte de l'examen qui constate une dilatation de 5 cm sur le partogramme
2 ☐ d'une estimation de l'heure à 5 cm à partir de la courbe du partogramme

J14 - Date et heure lors de la dilatation cervicale à 10 cm *(dilatation complète)*
(noter 99 99 99 99 si césarienne durant travail avant 10 cm) ..... J J / M M / H H / M N

J15 - Accouchement
1 ☐ voie basse non instrumentale
2 ☐ forceps
3 ☐ spatules
4 ☐ ventouse
5 ☐ césarienne

Si réponse 1 à 4 **J16 - Durée totale des efforts expulsifs** *(minutes)* .....

J17 - Episiotomie ..... 0 ☐ non 1 ☐ oui

J18 - Déchirure
1 ☐ non
2 ☐ déchirure du 1er degré ou déchirure périnéale simple (2ème degré)
3 ☐ périnée complet, ou complet-compliqué (3ème ou 4ème degré)

Si césarienne pendant travail

J19 - Dilatation cervicale lors du passage au bloc opératoire
(en cm, noter 00 si col fermé, 10 si dilatation complète) .....

Si césarienne pendant travail ou voie basse instrumentale

J20a - Motif principal de césarienne pendant travail ou de voie basse instrumentale

1 ☐ stagnation de la dilatation et/ou non-engagement de la présentation (yc dystocie) ou non progression de la présentation
2 ☐ anomalie du RCF ou du pH / lactates au scalp
3 ☐ autre indication fœtale, *préciser* .....
4 ☐ indication maternelle, *préciser* .....
5 ☐ autre, *préciser* .....

J20b - Deuxième motif

0 ☐ pas de deuxième motif
1 ☐ stagnation de la dilatation et/ou non-engagement de la présentation (yc dystocie) ou non progression de la présentation
2 ☐ anomalie du RCF ou du pH / lactates au scalp
3 ☐ autre indication fœtale, *préciser* .....
4 ☐ indication maternelle, *préciser* .....
5 ☐ autre, *préciser* .....

Pour toutes les césariennes ou extractions instrumentales

J21 - Si césarienne (programmée ou en urgence) ou extraction instrumentale, mode d'anesthésie *(deux réponses possibles)*

1 ☐ péridurale
2 ☐ rachianesthésie
3 ☐ péri-rachi combinée (ou rachi-péri séquentielle)
4 ☐ anesthésie générale
5 ☐ autre, *préciser* .....

POUR TOUTES LES FEMMES

J22 - Date et heure de naissance de l'enfant ..... J J / M M / H H / M N

J23 - Injection préventive d'ocytociques *(yc pour les femmes ayant eu une césarienne)*

0 ☐ non
1 ☐ bolus ou IV lente au moment du dégagement des épaules ou rapidement après la naissance
2 ☐ perfusion dans les heures suivant la naissance
3 ☐ les deux

J24 - Pertes sanguines estimées à l'accouchement (en ml) *(dans les 2h suivant l'accouchement, en salle de naissance ou en SSPI)* ..... ☐☐☐☐

J25 - Hémorragie sévère du post-partum : <u>au moins un</u> des critères suivants : pertes sanguines ≥ 1000 ml, embolisation, chirurgie (ligature vasculaire, suture utérine compressive, hystérectomie), transfusion de concentrés globulaires ..... 0 ☐ non 1 ☐ oui

Si oui, **J25a -** Noter en clair l'étiologie .....

J26 - Antibiothérapie de la mère pendant le travail *(avant l'accouchement)* ..... 0 ☐ non 1 ☐ oui

J27 - Hospitalisation particulière ou transfert de la mère

0 ☐ non
1 ☐ en réanimation ou en soins intensifs
2 ☐ en unité de surveillance continue (USC)
3 ☐ dans un autre service pour raison médicale maternelle, *préciser la spécialité médicale du service* : .....
4 ☐ pour accompagner l'enfant
5 ☐ en Centre Périnatal de Proximité (CPP)

Si 1, 2 ou 3, **J27a - Motif :** .....

Si 1 ou 2,
J27b - Durée :
1 ☐ moins de 24 heures
2 ☐ 24 heures ou plus

ENFANT

K1 - Etat à la naissance

1 ☐ né vivant
2 ☐ mort-né avant travail
3 ☐ mort-né pendant le travail
4 ☐ IMG

K2 - Résultat du pH artériel au cordon ..... ,

K3 - Prélèvement de liquide gastrique en salle de naissance ..... 0 ☐ non 1 ☐ oui

K4 - Apgar à 1 minute .....

K5 - Apgar à 5 minutes .....

K6 - Gestes techniques en raison de l'état à la naissance

K6a - Ventilation au masque 0 ☐ non 1 ☐ au ballon 2 ☐ Néopuff 3 ☐ moyen non précisé

K6b - PPC nasale (CPAP) ..... 0 ☐ non 1 ☐ oui

K6c - Intubation ..... 0 ☐ non 1 ☐ oui

K7 - Sexe 1 ☐ masculin 2 ☐ féminin

K8 - Poids *(grammes)* .....

K9 - Taille *(cm)* ..... ,

K10 - Périmètre crânien *(cm)* ..... ,

K11 - Anomalie congénitale

0 ☐ non
1 ☐ oui, *préciser de manière détaillée* .....

Si oui, **K11a - Anomalie diagnostiquée en anténatal** ..... 0 ☐ non 1 ☐ oui

K12 - Décès en maternité *(si naissance vivante)* ..... 0 ☐ non 1 ☐ oui

K13 - Transfert de l'enfant, mutation, ou hospitalisation particulière

0 ☐ non
1 ☐ en réanimation
2 ☐ en soins intensifs
3 ☐ en néonatalogie
4 ☐ en unité de néonatalogie dans la maternité *(y compris unité kangourou)*
5 ☐ autre, *préciser* .....

Si réponse 1 à 5

K13a - Transfert ou mutation

1 ☐ dans le même établissement *(même site)*
2 ☐ dans un autre établissement

K13b - Motif du transfert ou de l'hospitalisation particulière dans la maternité *(2 choix possibles)*

1 ☐ prématurité ou hypotrophie (petit poids pour l'âge gestationnel)
2 ☐ détresse respiratoire
3 ☐ suspicion d'infection
4 ☐ anomalie congénitale
5 ☐ autre, *préciser* .....

Si nouveau-né de mère antigène HBs positive,

K14 - Sérovaccination à la naissance

0 ☐ non
1 ☐ oui
2 ☐ non connu

K15 - Date de sortie de la mère de la maternité *(jj/mm)* ..... J J / M M

K16 - *Si le suivi de la grossesse a été réalisé en partie en dehors de la maternité,* description du dossier médical : les informations sur le suivi de grossesse et sur l'accouchement sont inscrites sur un dossier commun partagé depuis la déclaration de grossesse

0 ☐ non
1 ☐ dossier papier commun
2 ☐ dossier informatique commun

QUESTIONNAIRE MINIMAL

P1 et P2 - Numéro de la mère dans l'enquête ..... ☐☐☐☐☐☐☐☐☐ ☐☐☐

P3 - Ordre de la naissance si naissance multiple *coder 0 si naissance unique* ..... ☐

M1 - Région de naissance

1 ☐ Auvergne-Rhône-Alpes
2 ☐ Bourgogne-Franche-Comté
3 ☐ Bretagne
4 ☐ Centre- Val de Loire
5 ☐ Grand Est
6 ☐ Hauts-de-France
7 ☐ Ile-de-France
8 ☐ Normandie
9 ☐ Nouvelle-Aquitaine
10 ☐ Occitanie
11 ☐ Pays de la Loire
12 ☐ Provence-Alpes-Côte d'Azur et Corse
13 ☐ DROMs

M2 - Statut de l'établissement ..... 1 ☐ Public 2 ☐ Privé

M3 - Age de la mère (années)

1 ☐ < 20 2 ☐ 20-24 3 ☐ 25-29 4 ☐ 30-34 5 ☐ 35-39 6 ☐ 40-44 7 ☐ 45 et plus

M4 - Nombre d'accouchements (≥ 22SA) *(accouchement actuel non compris)* ..... ☐☐

M5 - Antécédent de césarienne *(grossesse actuelle non comprise)* ..... 0 ☐ non 1 ☐ oui

M6 - Début du travail

1 ☐ travail spontané
2 ☐ déclenchement du travail (y compris maturation du col seule)
3 ☐ césarienne avant le début du travail

M7 - Age gestationnel à l'accouchement (SA, J) ..... *SA* ☐☐ **+ J** ☐

ENFANT

M8 - Accouchement
1 ☐ voie basse non instrumentale
2 ☐ forceps, spatules, ventouse
3 ☐ césarienne

M9 - Présentation
1 ☐ céphalique 2 ☐ siège 3 ☐ autre

M10 - Etat à la naissance
1 ☐ vivant 2 ☐ mort-né 3 ☐ IMG

M11 - Poids *(grammes)*
1 ☐ < 1500 g 2 ☐ 1500-1999 3 ☐ 2000-2499 4 ☐ 2500-2999
5 ☐ 3000-3499 6 ☐ 3500-3999 7 ☐ 4000 et + 8 ☐ non noté

M12 - Apgar à 5 minutes ..... ☐☐

M13 - Transfert de l'enfant en réanimation, soins intensifs, néonatalogie, unité kangourou ..... 0 ☐ non 1 ☐ oui

M14 - Allaitement maternel (exclusif ou mixte avant la sortie) ..... 0 ☐ non 1 ☐ oui

Exemple d'image d'un carnet de santé maternité

Appendix 4 : 2 month follow-up

Questionnaire in english

.

To repeat for each child

Identification

M2_S2 - Please remind us <u>your</u> month and year of birth?

M2_S3 - Two months ago, you gave birth to [NAME]. Is it correct?

OR What is the name of your child?

M2_S4 - On what date did you <u>personally</u> leave the maternity ward?

M2_S5 - When did [NAME] come home?

1. at the same time as you
2. before you
3. after you
4. he/she is still in hospital
5. other (state) .....

Ask if M2_S3 = after you:

M2_S6 - On what date did [NAME] come home?

Pregnancy and childbirth

We will now ask you about your pregnancy and your childbirth.

M2_A1 - How would you describe your pregnancy?

1. a pleasant period
2. quite a pleasant period despite some difficult moments
3. a difficult period
4. an extremely difficult period

Ask if M2_A1 = 2, 3 or 4:

What were the main sources of difficulties during your pregnancy?

Enq: Quote in yes / no

1. feeling of solitude
2. feeling of long endless days
3. lack of advice or support from healthcare providers
4. intense fatigue
5. stress relating to the unborn child or childbirth
6. nausea, vomiting, back pain
7. other (state)

DROM_Q1 - During your pregnancy, did you have a habit of consuming the follow:

Enq: Quote in yes / no

1. raw rice
2. ice
3. dirt

DROM_Q2 - During your pregnancy, were people living with you or who intended to look after the child been vaccinated?

Enq: Quote in yes / no

1. against the flu
2. against whooping cough

M2_A2 - Are you satisfied with the medical care and monitoring of your pregnancy?

1. very satisfied
2. rather satisfied
3. rather unsatisfied
4. very unsatisfied

The following three questions relate to -1- words, -2- actions and -3- attitudes or behaviours of healthcare providers.

M2_A3 - During your pregnancy or delivery, did the healthcare providers sometimes <u>say things</u> that made you uncomfortable, shocked you, or hurt you?

1. never
2. very rarely
3. sometimes
4. often

M2_A4 - During your pregnancy or delivery, did the healthcare providers sometimes do things that made you uncomfortable, shocked you, or hurt you?

1. never
2. very rarely
3. sometimes
4. often

M2_A5 - During your pregnancy or delivery, did the healthcare providers sometimes adopt an attitude or behaviour that made you uncomfortable, shocked you, or hurt you?

1. never
2. very rarely
3. sometimes
4. often

If yes to one of these questions (A3, A4, or A5):

M2_A6 - When did these words, gestures, attitudes or behaviours happen?

Enq: Quote in yes / no

1. during a pregnancy consultation
2. during an ultrasound
3. during an emergency consultation
4. during the administration of anaesthesia
5. during labour
6. during your stay of the maternity ward
7. other (state)

M2_A7 - During the pregnancy, did the midwife or doctor ask for your permission before performing routine vaginal examinations, i.e., examination of the cervix to determine whether it was open or closed?

1. never
2. yes, sometimes
3. yes, systematically
4. no vaginal examination

M2_A8 - During labour in the delivery room, did you receive a perfusion of oxytocin, which is a product to increase the intensity or frequency of contractions, commercialised as Syntocinon®?

1. yes
2. no

If M2_A8 = yes,

M2_A8a - Did the midwife or doctor ask for your consent to start oxytocin?

1. yes
2. no

M2_A9 - Did you have an episiotomy, i.e. incision with scissors in the perineum?

1. yes
2. no

If M2_A9 = yes,

M2_A9a - Did the midwife or doctor ask for your consent to perform the episiotomy?

1. yes
2. no

M2_A10 - Did you have an unprogrammed or emergency caesarean section?

1. yes
2. no

If M2_A10 = yes,

M2_A10a - Did the medical team ask for your consent to perform the caesarean section?

1. yes
2. no

M2_A11 - Are you satisfied with the way you were taken care of by the professionals in the delivery room?

1. very satisfied
2. rather satisfied
3. rather unsatisfied
4. very unsatisfied

M2_A12 - Regarding your support in the delivery room or in the operating theatre, healthcare providers were:

1. very present
2. rather present
3. not very present
4. not available

The following five questions relate to your experiences with the healthcare providers during labour and postnatal care stay (e.g., doctors, midwives, nurses, or any other healthcare providers).

M2_A13 - How hard or easy was it for you to:
have good discussions about your health with midwives or doctors?
1. cannot do or always difficult
2. usually difficult
3. sometimes difficult
4. usually easy
5. always easy

M2_A14 - How hard or easy was it for you to:
discuss things with healthcare providers until you understand all you need to?
1. cannot do or always difficult
2. usually difficult
3. sometimes difficult
4. usually easy
5. always easy

M2_A15 - How hard or easy was it for you to:
ask healthcare providers questions to get the health information you need?
1. cannot do or always difficult
2. usually difficult
3. sometimes difficult
4. usually easy
5. always easy

M2_A16 - How hard or easy was it for you to:
make sure that healthcare providers understand your problems properly?
1. cannot do or always difficult
2. usually difficult
3. sometimes difficult
4. usually easy
5. always easy

M2_A17 - How hard or easy was it for you to:
feel able to discuss your health concerns with a healthcare provider?
1. cannot do or always difficult
2. usually difficult
3. sometimes difficult
4. usually easy
5. always easy

M2_A18 - What kind of memories do you have about your childbirth?
1. very good
2. rather good
3. rather bad
4. very bad

M2_A18 - Would you recommend a relative, a sister or a friend to give birth in the same maternity ward as you?
1. yes
2. no
3. you do not wish to answer

Maternity ward and return home

We will now ask you about maternity ward and return home.

M2_B1 - At the maternity ward, did you entrust your newborn to the nursery staff at least once during your stay either during the day or at night, aside from specific interventions, i.e. baths, monitoring, blood samples, hearing test, etc.?
1. yes
2. no

M2_B2 - Regarding your support during the stay in the maternity ward, healthcare providers were:
1. very present
2. rather present
3. not very present
4. not available

M2_B3 - Are you satisfied with the pain-relief method(s) given during your stay in the maternity ward after childbirth?

1. very satisfied
2. rather satisfied
3. somewhat satisfied
4. not at all satisfied
5. no pain

M2_B4 - Looking back, what do you think about the length of your stay in the maternity ward?

1. too short
2. suitable
3. too long

M2_B5 - Did a midwife visit you at home after your return from the maternity ward?

1. yes
2. no

If M2_B5 = yes,

M2_B5a - How many times did she visit you?

M2_B5b - The home visit was organised in the framework of:

1. home return support programme - PRADO
2. home hospitalization - HAD
3. mother and infant protection service – PMI
4. another programme (state)
5. no programme
6. (do not know)

M2_B6 - Did a nursery nurse visit your baby at home after your return from the maternity ward?

1. yes
2. no

If M2_B6 = yes,

M2_B6a - How many times did she visit you?

M2_B6b - The home visit was organised in the framework of:

1. home hospitalization - HAD
2. mother and infant protection service – PMI
3. another programme (state)
4. no programme
5. (do not know)

DROM_Q3a - Since your return from the maternity ward, did you have a remote consultation, via video conference or telephone, with a healthcare provider?

1. yes
2. no

If DROM_Q3a = yes,

DROM_Q3b - With which healthcare provider did you have a remote consultation (via video conference or telephone)?

1. gynaecologist in private practice or a private hospital
2. gynaecologist in a public hospital
3. general practitioner
4. midwife in private practice or a private hospital
5. midwife from a Local Perinatal Centre (CPP)
6. doctor from a Local Perinatal Centre (CPP)
7. doctor or midwife from the Mother and Infant Protection (PMI) service
8. paediatrician in private practice or a private hospital
9. paediatrician in a public hospital

M2_B7 - Have you resumed your professional activity?

1. no, you have not yet returned to work (maternity leave, illness, parental leave, annual leave, etc.)
2. no, but you did not work during the pregnancy
3. yes, you have returned to work

If M2_B7 = yes,

M2_B7A - When did you return to work?

Partner

We will now ask you about your partner.

M2_C1 - Are you currently in a relationship?
1. yes
2. no

If M2_C1 = no, go to question M2_D1

M2_C2 - How old is your partner?

M2_C3 - What is your partner's nationality?
1. French
2. foreign
3. French and foreign

If M2_C3 = 2 or 3,

M2_C3A - What is the foreign nationality of your partner?

M2_C4 - In what country was your partner born?
1. France (mainland and overseas territories)
2. other country

If M2_C4 = other country,

M2_C4A - What is the country of birth of your partner?

M2_C5 - What is the current or last profession of your partner?

M2_C6 - In his/her current or last employment, your partner was:
1. self-employed (including company manager or salaried company manager)
2. paid employee or trainee of the public service (State, territorial, hospital)
3. paid employee or trainee of another employer (company, association)
4. he help someone with their work without being paid

M2_C7 - Is your partner currently working?
1. yes
2. yes, but he is on partial unemployment because of the health crisis
3. no

If M2_C7 = no,

M2_C7A - What is his/her situation?
1. unemployed, jobseeker, or looking for work
2. student (including training course)
3. in another situation (state)

M2_C8 - Did your partner go on parental, paternity or annual leave after the birth?
1. yes
2. no, but he intends to
3. no, he will not go on leave

If M2_C7 = 1 or 2,

M2_C8A - What is the number of days off taken or planned?

Your overall health since the birth

We will now ask you about your overall health since the birth

M2_D1 - How would you describe the period between the birth and today?

1. a pleasant period
2. quite a pleasant period despite some difficult moments
3. a difficult period
4. an extremely difficult period

If M2_D1 = 2, 3 or 4,

What were your main sources of difficulties since the birth?

Enq: Quote in yes / no
1. feeling of long endless days
2. feeling lonely

3. lacking advice about caring for your baby
4. difficulties looking after your baby
5. tiredness
6. breastfeeding difficulties
7. worried about your baby's health
8. worried about your own health
9. other (state)

M2_D2 - Are you still in pain from the childbirth?

1. yes
2. no

If M2_D2 = yes,

Where is the pain?

Enq: Quote in yes / no

1. at the episiotomy scar or perineal tear
2. at the caesarean scar
3. in the back
4. other (state)

DROM_Q5 - Since returning home from the maternity ward, have you seen your general practitioner, a medical specialist, or another health professional for the following:

Enq: Quote in yes / no

1. diabetes follow-up
2. glycaemia monitoring after gestational diabetes
3. advice about diet and resuming physical activity
4. another problem (state)

M2_D3 - Which contraceptive method(s) are you currently using?

1. no contraception
2. pill
3. IUD
4. implant
5. patch
6. vaginal ring
7. condom (male or female)
8. withdrawal
9. periodic abstinence (e.g., temperature, date, Ogino or Billings method)
10. another method (state)

M2_D4 - Have you resumed sexual intercourse since giving birth?

1. yes
2. no
3. (you don't wish to answer)

M2_D5 - How many close friends or relatives can you currently count on if you have any serious personal problems?

1. none
2. 1 to 2
3. 3 to 5
4. 6 or more

The following 10 questions seek to understand how you felt in the past week.

M2_D6 - In the past 7 days: you have been able to laugh and see the funny side of things.

1. as much as I always could
2. not quite so much now
3. definitely not so much now
4. not at all

M2_D7 - In the past 7 days: you have looked forward with enjoyment to things.

1. as much as I ever did
2. rather less than I used to
3. definitely less than I used to
4. hardly at all

M2_D8 - In the past 7 days: you have blamed yourself unnecessarily when things went wrong.

1. yes, most of the time
2. yes, some of the time
3. not very often
4. no, never

M2_D9 - In the past 7 days: you have been anxious or worried for no good reason.

1. no, not at all
2. hardly ever
3. yes, sometimes
4. yes, very often

M2_D10 - In the past 7 days: you have felt scared or panicky for no very good reason.

1. yes, quite a lot
2. yes, sometimes
3. no, not much
4. no, not at all

M2_D11 - In the past 7 days: things have been getting on top of you.

1. yes, most of the time I haven't been able to cope
2. yes, sometimes I haven't been coping as well as usual
3. no, most of the time I have coped quite well
4. no, I have been coping as well as ever

M2_D12 - In the past 7 days: you have been so unhappy that you have had difficulty sleeping.

1. yes, most of the time
2. yes, sometimes
3. not very often
4. no, not at all

M2_D13 - In the past 7 days: you have felt sad or miserable.

1. yes, most of the time
2. yes, quite often
3. not very often
4. no, not at all

M2_D14 - In the past 7 days: you have been so unhappy that you have been crying.

1. yes, most of the time
2. yes, quite often
3. only occasionally
4. no, never

M2_D15 - In the past 7 days: the thought of harming yourself has occurred to you.

1. yes, quite often
2. sometimes
3. hardly ever
4. never

Your child

We will now ask you about your child.

M2_E1 - In your opinion, [NAME] is currently:

1. in good health
2. in rather good health
3. in rather poor health
4. in poor health

M2_E2 - Were you informed about the role of the PMI (Mother and Infant Protection) and how to contact your local service?

1. yes
2. no

If M2_E2 = yes,

When did you receive this information about the role and how to contact the PMI?

Enq: Quote in yes / no

1. during your pregnancy
2. at the maternity ward
3. after your return home
4. during a previous pregnancy or childbirth
5. other (state)

M2_E3 - During your pregnancy or since the birth of your child, were you given advice about how to calm or soothe your baby's persistent or prolonged crying?

1. yes
2. no

If M2_E3 = yes,

From whom?

Enq: Quote in yes / no

1. healthcare providers at the maternity ward
2. close family and friends
3. general practitioner, paediatrician, or midwife
4. Mother and Infant Protection (PMI) service
5. other (state)

M2_E4 - Were you advised by healthcare providers to put your baby to sleep on his/her back?
1. yes
2. no

The next questions will concern [NAME]

M2_E5 - Which doctor performed the examination for [NAME]' second week, noted on p.11 of the health record?
1. no examination by a doctor
2. paediatrician
3. general practitioner
4. PMI doctor
5. other (state)

If M2_E5 = 2,3,4 or 5,

M2_E5A - What was the date of this examination?

M2_E6 - When was [NAME] last measured and weighed?

M2_E7 - What was his/her height?

M2_E8 - What was his/her weight?

M2_E9 - What was his/her head circumference?

M2_E10 - Has [NAME] been vaccinated against tuberculosis with the BCG vaccine? See p.99 of the health record.
1. yes
2. no

If M2_E10 = yes,

M2_E10A - When was he/she vaccinated against tuberculosis with the BCG vaccine?

M2_E11 - Has [NAME] been vaccinated against rotavirus with the Rotatex® or Rotaris® vaccine? See p.101 of the health record.
1. yes
2. no

If M2_E11 = yes,

M2_E11A - When was he/she vaccinated against rotavirus with the Rotatex® or Rotaris® vaccine?

M2_E12 - Has [NAME] visited the emergency room (unscheduled hospital visit) since his/her birth?
1. yes
2. no

If M2_E12 = yes,

M2_E12A - How many times?

M2_E12B - How old was [NAME] at his/her first emergency room visit?
1. less than 8 days old
2. between 9 and 30 days
3. more than 1 month

M2_E13 - Has [NAME] been hospitalised since leaving the maternity ward?
1. yes
2. no

If M2_E13 = yes,

M2_E13A - How many times?

M2_E13B - Why was he/she hospitalised?
1. fever
2. urinary infection
3. stable weight or weight loss
4. crying
5. fainting
6. nausea, vomiting, or diarrhoea
7. breathing difficulties
8. other, state

M2_E14 - **Which healthcare provider primarily cares for [NAME] ?**

1. paediatrician in private practice
2. general practitioner in private practice
3. PMI healthcare provider
4. other (state)

M2_E15 - **Did you breastfeed [NAME], even for a few days?**

1. yes
2. no

If M2_E15 = no, go to question M2_E19

M2_E16 - **Do you give infant formula to [NAME]?**

1. no
2. yes, regularly
3. yes, occasionally

If M2_E16 = yes,

M2_E13A - **How old was [NAME] when he/she first had infant formula?**

DROM_Q6 - **I will quote you several difficulties that can arise during breastfeeding. Please answer yes or no to each of them. Have you experienced...**

1. fatigue
2. pain
3. cracked nipples
4. breast engorgement
5. lymphangitis
6. mastitis
7. lack of milk
8. lack of desire to breastfeed
9. lack of time to breastfeed
10. long feeds
11. often interrupted during breastfeeding
12. newborn still hungry after feeding
13. newborn falling asleep during feeding
14. bad breastfeeding position
15. newborn refusing the breast
16. newborn feeding incorrectly
17. newborn becoming irritated or crying during feeding
18. newborn not having enough milk
19. newborn feeding too often
20. none
21. other (state)

M2_E17 - **After leaving the maternity ward, did you receive support from a healthcare provider for your breastfeeding problems?**

1. no, but you needed support
2. no, but it was not necessary
3. no, because you stopped breastfeeding after leaving the maternity ward
4. yes

If M2_E17 = yes,

When did you receive this support?

Enq: Quote in yes / no

1. during home visits
2. during consultations
3. by telephone

M2_E18 - **How are you currently feeding [NAME]?**

1. infant formula only
2. breastmilk only
3. both (mixed)

If M2_E18 = 1,

M2_E18A - **How old was he/she when you completely stopped breastfeeding?**

If M2_E18 = 3,

M2_E18B - **How many days did your child have infant formula last week?**

M2_E19 - **Over the last few nights, where did your child sleep most often?**

1. alone in a room
2. in a cot or bassinet in a room with you
3. with you in your bed
4. in a cot or bassinet in a room with other people (e.g., sisters, brothers)

5. in the same bed as one or several other people (e.g., sisters, brothers)
6. other (state)

M2_E20 - How do you put [NAME] to sleep?

Enq: Quote in never / rarely / sometimes / often / always

1. on the back
2. on the stomach
3. on the side

M2_E21 - During the past week, between 11 pm and 6 am, how many times did your child wake up on average?

M2_E22 - What type of childcare do you intend to use for your child (or currently use if you have already returned to work)?

Enq: two answers possible

1. individual childcare like a qualified childminder
2. collective childcare like a crèche or day care
3. you or your partner
4. family and friends
5. you do not know
6. other (state)

Your life habits

We will now ask you about your life habits.

M2_F1 - What language(s) did you speak at home when you were a child?

1. French
2. French and one or more other language(s)
3. one or more other language(s)

If M2_F1 = 2 or 3,

M2_F1A - What other language(s) did you speak?

M2_F2 - In the past 10 years, were you vaccinated, or did you have a booster, against whooping cough?

1. no
2. yes, your vaccination was up to date before your pregnancy
3. yes, you were vaccinated during your pregnancy
4. yes, you were recently vaccinated after giving birth
5. you do not know

M2_F3 - Are you disabled?

1. yes
2. no

If M2_F3 = yes,

M2_F3A - What is your disability?

M2_F3B - Was the medical management of your pregnancy adapted to your disability?

Enq: Quote in yes / no

1. when registering at the maternity ward
2. during the pregnancy follow-up
3. during childbirth
4. during your stay in the maternity ward
5. since returning home

M2_F4 - Since your adolescence, have you:

Enq: Quote in yes / no

1. consulted a psychologist for more than 3 months?
2. consulted a psychiatrist for more than 3 months?
3. been hospitalised for a psychological or psychiatric reason?

M2_F5 - How much did you weigh before the pregnancy?

M2_F6 - How much do you currently weigh?

M2_F7 - Around one year before the start of your pregnancy, did you smoke (i.e., "standard" cigarettes, rolling tobacco, or e-cigarettes)?

1. yes
2. no

If M2_F7 = no, go to question M2_F13

If M2_F7 = yes,

M2_F8 - Around one year before the start of your pregnancy, did you smoke e-cigarettes?

0. no
1. yes, mostly without nicotine
2. yes, mostly with nicotine
3. yes, with or without nicotine
4. yes, but you do not know their composition

M2_F9 - In the third trimester of your pregnancy, did you smoke e-cigarettes?

0. no
1. yes, mostly without nicotine
2. yes, mostly with nicotine
3. yes, with or without nicotine
4. yes, but you do not know their composition

If M2_F9 = 1, 2, 3 or 4,

M2_F9A - How often did you smoke e-cigarettes in the third trimester of your pregnancy?

1. less than once a week
2. at least once a week
3. everyday

M2_F10 - Did you quit, try to quit, or cut down on regular cigarettes, not including e-cigarettes, during your pregnancy?

1. yes
2. no

If M2_F10 = yes,

M2_F11 - What was your motivation?

Enq: Quote in yes / no

1. your health
2. your pregnancy and/or your baby's health
3. advice from family and friends
4. cost of cigarettes
5. other (state)

M2_F12 - How did you quit, try to quit or cut down your tobacco use?

Enq: Quote in yes / no

1. consulting a tobacco specialist
2. consulting a doctor or another healthcare provider
3. tobacco info service (TIS) (3989, website, or mobile phone application)
4. nicotine substitutes (patches, chewing gum, pills, inhaler, spray)
5. behavioural or cognitive therapy (one-on-one consultations, telephone consultations, self-help methods)
6. e-cigarettes or personal vaporiser
7. alternative medicine (acupuncture, hypnosis, tobacco-free cigarettes, homeopathy, sophrology, etc.)
8. alone
9. other (state)

M2_F13 - In the third trimester of your pregnancy, how many regular cigarettes did you smoke per day on average?

M2_F14 - Are you currently smoking?

1. no
2. yes, regular cigarettes (including rolling tobacco)
3. yes, e-cigarettes with or without nicotine
4. yes, both

M2_F15 - Since your return home, have you smoked cannabis?

1. yes
2. no

If M2_F15 = yes,

M2_F15A - How often have you smoked cannabis?

1. less than once a month
2. 1 to 2 times per month
3. 3 to 5 times per month
4. 6 to 9 times per month
5. at least 10 times per month

M2_F16 - Since your return home, how often do you drink alcohol?

1. never
2. once a month or less
3. 2 to 4 times per month

4. 2 to 3 times per week
5. at least 4 times, but not everyday
6. everyday

If M2_F16 = 2, 3, 4, 5 or 6,

M2_F16A - How many standard glasses do you drink in a week, including the weekend?

1. less than a glass
2. 1 to 4 glasses per week
3. 5 to 10 glasses per week
4. 11 to 13 glasses per week
5. 14 glasses or more

M2_F17 - Over the last 7 nights, how many hours of sleep in a row did you have between 11 pm and 6 am on average?

We will now ask you about your use of personal care and cosmetic products.

M2_F18 - Did you change your consumption of personal care and cosmetic products (deodorant, beauty products, make-up, etc.)?

Enq: Quote in yes / no

1. during a previous pregnancy
2. before this pregnancy
3. at the start of this pregnancy
4. during the second or trimester of this pregnancy
5. since giving birth

If M2_F18 = no for all moments, go to question M2_G1

If M2_F18 = at least one yes,

M2_F19 - For which type of products did you change your habits?

Enq: Quote in never used / no, no change / yes, new product / yes, stopped using

1. shower gel
2. body soap
3. feminine hygiene product
4. body lotion or cream
5. face lotion or cream
6. deodorant
7. perfume or eau de toilette
8. make-up
9. nail polish
10. nail polish remover
11. hair dye
12. other products (state)

If M2_F19 = at least one yes,

You said you changed your habits for certain types of products.

M2_F19BIS - Have you changed your habits for your own health regarding:

Enq: Quote in yes / no

1. shower gel
2. body soap
3. feminine hygiene product
4. body lotion or cream
5. face lotion or cream
6. deodorant
7. perfume or eau de toilette
8. make-up
9. nail polish
10. nail polish remover
11. hair dye
12. other products (state)

M2_F19TER - Have you changed your habits for your baby's health regarding:

Enq: Quote in yes / no

1. shower gel
2. body soap
3. feminine hygiene product
4. body lotion or cream
5. face lotion or cream
6. deodorant
7. perfume or eau de toilette
8. make-up
9. nail polish
10. nail polish remover
11. hair dye

12. other products (state)

M2_F20 - Did you receive advice or look for information on the use of personal care and cosmetic products during pregnancy?

1. yes
2. no

If M2_F20 = yes,

M2_F20A - Did you:

Enq: Quote in yes / no

1. receive advice from your relatives, friends, or colleagues?
2. receive advice from healthcare providers (e.g., midwives, doctors)?
3. obtain information from posters or prospectus?
4. obtain information from books, newspapers, or television?
5. look for information on the internet?

Violence against women

Finally, as part of the evaluation of violence against women, we would like you answer a few questions about any violence that you may have experienced in the last 12 months.

M2_G1 - During the last 12 months, were you insulted, denigrated, blackmailed, threatened, or given death threats?

1. no
2. yes, during pregnancy
3. yes, since giving birth
4. yes, during pregnancy and since giving birth
5. you do not wish to respond

If M2_G1 = 2, 3 or 4,

M2_G1A - Who was it?

Enq: several answers possible

1. your partner
2. a male acquaintance
3. a female acquaintance
4. an unknown male
5. an unknown female

M2_G1B - How often?

1. once
2. several times

M2_G2 - During the last 12 months, were you hit, slapped, beaten, injured, or intentionally pushed?

1. no
2. yes, during pregnancy
3. yes, since giving birth
4. yes, during pregnancy and since giving birth
5. you do not wish to respond

If M2_G2 = 2, 3 or 4,

M2_G2A - Who was it?

Enq: several answers possible

1. your partner
2. a male acquaintance
3. a female acquaintance
4. an unknown male
5. an unknown female

M2_G2B - How often?

1. once
2. several times

M2_G3 - During the last 12 months, were you forced into sexual intercourse or other sexual acts?

1. no
2. yes, during pregnancy
3. yes, since giving birth
4. yes, during pregnancy and since giving birth
5. you do not wish to respond

If M2_G2 = 2, 3 or 4,

M2_G3A - Who was it?

Enq: several answers possible

1. your partner
2. a male acquaintance
3. a female acquaintance
4. an unknown male
5. an unknown female

M2_G3B - How often?

1. once
2. several times

Comments

M2_H1 - Do you have any other comments that you would like to add to this questionnaire as a whole?

M2_H2 - Did you need help to complete this questionnaire (partner, friend…)?

1. yes
2. no

If M2_H2 = yes,

M2_H2A - Who helped you?

1. your husband or partner
2. family member
3. friend
4. other (state)

We thank you for taking the time to complete this questionnaire.

Thanks to your participation, research is progressing and allows us to better understand the health issues surrounding pregnancy, childbirth and the first months of life of children.

Please do not hesitate to consult your general practitioner, your child's doctor, or your nearest PMI (Mother and Infant Protection) service, if necessary.

The PMI offers free consultations for mothers and their young children in local centres or at home.

Would you like me to read you phone numbers of associations whose themes were discussed during the interview?

If yes,

Violence against women, call 3919
Alcohol info service, call 09.80.98.09.30
Tobacco info service, call 3989
Drug info service, call 08.00.23.13.13
CIANE, a collective of several associations relating to pregnancy, birth, and the first days of life, call 06.60.63.70.89

Appendix 5: Questionnaire Etablissement

In french, no translation

Enquête Nationale Périnatale

*Vu l'avis favorable du Comité de Protection des Personnes (CPP Ouest II) en date du 7/07/2020. Vu l'**avis favorable** du Conseil national de l'information statistique, cette enquête est reconnue d'**intérêt général et de qualité statistique sans avoir de caractère obligatoire**, en application de la loi n° 51-711 du 7 juin 1951 sur l'obligation, la coordination et le secret en matière de statistiques. Visa **n°2021X701SA** du Ministre de l'Économie, des Finances et de la Relance, valable pour l'année **2021** – Arrêté du 23/11/2020. Vu l'autorisation DR-2020-391 de la Commission Nationale de l'Informatique et des Libertés (CNIL) le 31/12/2020.*

INFORMATIONS PREALABLES *(pré-remplies par la coordinatrice)*

A1 - Numéro FINESS géographique de l'établissement |__|__|__|__|__|__|__|__|__|__|

A2 - Statut : 0 : CHU ; 1 : CHR ; 2 : CH ; 3 : Maison de Naissance ; 4 : ESPIC ; 5 : Autre privé |__|

A3 - Type d'autorisation : 1 : 1 : Unité d'obstétrique |__|
2 : 2A : Unité d'obstétrique avec néonatologie sans soins intensifs
3 : 2B : Unité d'obstétrique avec néonatologie avec soins intensifs
4 : 3 : Unité d'obstétrique, de néonatologie et de réanimation néonatale

A4 - Nombre d'accouchements en 2020 : |__|__|__|__|__|

EQUIPEMENTS

B1 - Votre établissement est-il doté :

B1a - d'un local ou d'une pièce où peuvent être regroupés les nouveau-nés (nurserie, crèche…) dans la maternité ?
0 : non ; 1 : oui |__|

B1b - d'un service de néonatalogie ? 0 : non ; 1 : oui |__|

Si oui,
B1b1 - Ce service a-t-il un programme NIDCAP
(programme néonatal d'évaluation et de soins de développement individualisés) ? 0 : non ; 1 : oui |__|

B1b2 - Ce service a-t-il un autre programme ? 0 : non ; 1 : oui |__|
Préciser : ……

B1c - d'une « unité kangourou » (unité de néonatologie intégrée soit dans une maternité au sein des suites de couches (le nouveau-né étant soigné dans la chambre de sa mère) soit dans une unité de néonatologie voisine adaptée à recevoir des parents 24h/24, les sages-femmes venant s'occuper de la mère) 0 : non ; 1 : oui |__|

Si oui,
B1c1 - combien y-a-t-il de lits ? |__|__|

B1c2 - l'unité est-elle dans le même bâtiment que le service de néonatalogie ? 0 : non 1 : oui |__|

B2 - Avez-vous des liens avec le lactarium le plus proche de votre établissement ?
0 : non |__|
1 : oui, au cours d'une réunion structurée annuelle
2 : oui, via des collectes de lait régulières dans votre établissement organisées par le lactarium
3 : autre, préciser : ……

B3 - Informez-vous les mères qui allaitent de la possibilité de faire don de lait au lactarium ? 0 : non ; 1 : oui I__I

B3a – Si non, pourquoi ?

1 : le lactarium le plus proche ne vient pas collecter sur votre territoire I__I
2 : vous ne connaissez pas les modalités du don
3 : vous n'avez pas l'information que les lactariums peuvent manquer de lait
4 : autre, préciser : ……

B4 - Pour les césariennes, le bloc obstétrical est-il : (plusieurs réponses possibles)

1 : dans le secteur naissance, avec des salles dédiées aux césariennes I__I I__I
2 : contigu au secteur naissance, inclus dans le bloc opératoire commun à plusieurs spécialités
3 : non contigu au secteur naissance mais dans le même bâtiment, inclus dans le bloc opératoire commun à plusieurs spécialités
4 : dans un autre bâtiment que le secteur naissance, inclus dans le bloc opératoire commun à plusieurs spécialités
5 : autre situation, préciser : ……

B5 - Dans la maternité ou sur le site où se situe la maternité, y a-t-il :

B5a - Une salle de réveil 24h/24 (salle de surveillance post-interventionnelle) 0 : non ; 1 : oui I__I

B5b - Une unité de surveillance continue 0 : non ; 1 : oui I__I

Si oui, **B5b1-** Est-elle spécialement dédiée à la gynécologie et à l'obstétrique 0 : non ; 1 : oui I__I

B5c - Un service de réanimation adulte ou de soins intensifs 0 : non ; 1 : oui I__I

Si pas de service de réanimation adulte,

B5c1 - A quelle distance se situe le service de réanimation adulte vers lequel vous transférez le plus régulièrement les femmes (km) ? I__I__I__I

B6 - Votre maternité est-elle équipée pour assurer le suivi prénatal, l'accouchement et l'hospitalisation des femmes à mobilité réduite (en particulier au moins une chambre spécialement aménagée) ? 0 : non ; 1 : oui I__I

B7 - **Votre maternité utilise-t-elle un dossier médical informatisé ?** (pour le suivi de grossesse ou les hospitalisations ou le suivi de travail ou de l'accouchement) ?

0 : non, dossier papier uniquement ; 1 : oui, dossier informatisé uniquement ; 3 : les deux I__I

Si oui, **B7a** - **Ce dossier est-il commun à plusieurs structures**?

0 : non ; 1 : oui, commun non partagé ; 2 : oui, commun et partagé I__I

Si oui, **B7a1 -** Avec quelles structures ce dossier est-il commun ?

1 : L'ensemble des structures du réseau I__I
2 : Une partie des structures du réseau
3 : Uniquement avec les Centres Périnataux de Proximité (CPP)
4 : autre, préciser : ……

B8 - Dans votre maternité, quel professionnel est en charge du codage des diagnostics PMSI des séjours maternels ?

B8a - Un médecin sénior de la maternité 0 : non ; 1 : oui I__I
B8b - Une sage-femme de la maternité 0 : non ; 1 : oui I__I
B8c - Un interne 0 : non ; 1 : oui I__I
B8d - Une étudiante sage-femme 0 : non ; 1 : oui I__I
B8e - Une secrétaire ou une assistante administrative 0 : non ; 1 : oui I__I
B8f - Une personne du DIM de l'établissement 0 : non ; 1 : oui I__I
B8g - Une personne extérieure à l'établissement 0 : non ; 1 : oui I__I
B8h - Autres 0 : non ; 1 : oui, **à préciser ……** I__I

B9 - Dans votre maternité, quel professionnel est en charge du codage des diagnostics PMSI des séjours de l'enfant ?

B9a - Un pédiatre de la maternité 0 : non ; 1 : oui |__|
B9b - Une sage-femme 0 : non ; 1 : oui |__|
B9c - Un interne 0 : non ; 1 : oui |__|
B9d - Une étudiante sage-femme 0 : non ; 1 : oui |__|
B9e - Une infirmière puéricultrice 0 : non ; 1 : oui |__|
B9f - Une secrétaire ou une assistante administrative 0 : non ; 1 : oui |__|
B9g - Une personne du DIM de l'établissement 0 : non ; 1 : oui |__|
B9h - Une personne extérieure à l'établissement 0 : non ; 1 : oui |__|
B9i - Autres 0 : non ; 1 : oui**, à préciser** …… |__|

B10 - Travaillez-vous en réseau avec un ou plusieurs Centres Périnataux de Proximité (CPP) ? 0 : non ; 1 : oui |__|__|

Si oui, **B10a - Avec combien de CPP travaillez-vous ?** |__|__|
B10b - Quelles sont leurs activités ?
……
……
……

B11 – Avez-vous mis en place un dépistage systématique de l'infection à Coronavirus lors de l'accouchement ?
0 : non ; 1 : oui |__|

Si oui, **B11a** - quelle est la méthode utilisée 1 : test antigénique |__|
2 : PCR
3- Autre, à préciser, ……
B11b – Date de mise en place |__|__|/|__|__|/|__|__|

EQUIPE SOIGNANTE

Personnel médical présent en salle de naissance

C1 - Parmi les personnes sur place ou d'astreinte, y compris la nuit et le week-end, le médecin le plus qualifié en obstétrique a-t-il <u>toujours</u> la compétence chirurgicale pour réaliser les césariennes (médecin qualifié en gynécologie <u>et</u> obstétrique) ?
0 : non ; 1 : oui |__|

C2 - Pour le personnel médical de votre établissement (*pour chaque catégorie de personnel ci-dessous)***, précisez si le jour et la nuit, en semaine et le week-end, il est :**
1 : sur place pour la maternité ou le service de gynécologie-obstétrique
2 : sur place dans l'établissement
3 : en astreinte opérationnelle hors établissement
4 : pas présent dans l'équipe de garde

Si plusieurs situations possibles, inscrire celle correspondant au code le plus faible

	SEMAINE		WEEK-END	
	Jour	Nuit	Jour	Nuit
C2a - Gynécologue-obstétricien	|__|	|__|	|__|	|__|
C2b - Interne en gynécologie-obstétrique	|__|	|__|	|__|	|__|
C2c - Pédiatre	|__|	|__|	|__|	|__|
C2d - Interne en pédiatrie	|__|	|__|	|__|	|__|
C2e - Anesthésiste-réanimateur	|__|	|__|	|__|	|__|
C2f - Interne en anesthésie	|__|	|__|	|__|	|__|

C3 - Combien de sages-femmes sont-elles présentes pour réaliser et accompagner les accouchements ou les césariennes en salle de naissance (indiquer le nombre de SF, ne pas convertir en ETP) ?

	SEMAINE		WEEK-END	
	Jour	Nuit	Jour	Nuit
C3a - Nombre de sages-femmes en salle de naissance	I__I	I__I	I__I	I__I
C3b - Nombre de sages-femmes d'astreinte	I__I	I__I	I__I	I__I

C4 - Les sages-femmes de salle de naissance ont-elles d'autres activités (sous la forme 0 : non ; 1 : oui) ?

	SEMAINE		WEEK-END	
	Jour	Nuit	Jour	Nuit
C4a - Urgences obstétricales	I__I	I__I	I__I	I__I
C4b - Urgences gynécologiques	I__I	I__I	I__I	I__I
C4c - Consultation de fin de grossesse, explorations fonctionnelles, surveillance intensive	I__I	I__I	I__I	I__I
C4d – Autres (amniocentèse, VME, IVG médicamenteuses …), préciser :				

C5 - <u>Concernant le personnel paramédical dédie en salle de naissance</u> lors d'une garde, combien y-a-t-il (indiquer le nombre de personnes, ne pas convertir en ETP) ?

	SEMAINE		WEEK-END ?	
	Jour	Nuit	Jour	Nuit
C5a - Aides-soignantes ou auxiliaires de puériculture	I__I	I__I	I__I	I__I
C5b - Infirmières (IDE)	I__I	I__I	I__I	I__I
C5c - Infirmières puéricultrices	I__I	I__I	I__I	I__I
C5d - Infirmières anesthésistes (IADE)	I__I	I__I	I__I	I__I

C6 - Votre maternité a-t-elle recours à des intérimaires ou vacataires ?

C6a - Gynécologue-obstétriciens pour le secteur obstétrical pour la garde en salle de naissance

0 : jamais
1 : une fois par mois ou moins
2 : plusieurs fois par mois
3 : plusieurs fois par semaine
4 : tous les jours

I__I

Si réponse 2 à 4, **C6a1 - Ce personnel est-il ?**
1 : Habitué au service (plusieurs gardes par mois)
2 : Peu habitué au service
3 : Non habitué au service

I__I

C6b - Anesthésistes pour le secteur obstétrical
0 : jamais
1 : une fois par mois ou moins
2 : plusieurs fois par mois
3 : plusieurs fois par semaine
4 : tous les jours

I__I

Si réponse 2 à 4, **C6b1 - Ce personnel est-il ?**
1 : Habitué au service (plusieurs gardes par mois)
2 : Peu habitué au service
3 : Non habitué au service

I__I

C6c – Pédiatres 0 : jamais I__I
1 : une fois par mois ou moins
2 : plusieurs fois par mois
3 : plusieurs fois par semaine
4 : tous les jours

Si réponse 2 à 4, **C6c1 - Ce personnel est-il ?** 1 : Habitué au service (plusieurs gardes par mois) I__I
2 : Peu habitué au service
3 : Non habitué au service

C6d - Sages-femmes 0 : jamais I__I
1 : une fois par mois ou moins
2 : plusieurs fois par mois
3 : plusieurs fois par semaine
4 : tous les jours

Si réponse 2 à 4, **C6d1 - Ce personnel est-il ?** 1 : Habitué au service (plusieurs gardes par mois) I__I
2 : Peu habitué au service
3 : Non habitué au service

C7 - La maternité a-t-elle recours à un(e) psychologue ? 0 : non ; 1 : oui I__I

Si oui, C7a - De quelle manière votre maternité a-t-elle recours à ce professionnel ?

1 : En interne, avec un temps de travail dédié(e) à la maternité I__I
2 : En interne, sans temps de travail dédié à la maternité (cad ponctuellement, en cas de besoin uniquement)
3 : En externe, via un autre établissement de santé
4 : En externe, via une unité mobile
5 : En externe, via un Centre Médico-Psychologique (CMP)
6 : En externe, via des professionnels libéraux
7 : Autre, préciser : ……..

C8 - La maternité a-t-elle recours à un(e) psychiatre ? 0 : non ; 1 : oui I__I

Si oui, C8a - De quelle manière votre maternité a-t-elle recours à ce professionnel ?

1 : En interne, avec un temps de travail dédié(e) à la maternité I__I
2 : En interne, sans temps de travail dédié à la maternité (cad ponctuellement, en cas de besoin uniquement)
3 : En externe, via un autre établissement de santé
4 : En externe, via une unité mobile
5 : En externe, via un Centre Médico-Psychologique (CMP)
6 : En externe, via des professionnels libéraux
7 : Autre, préciser : ……..

C9 - La maternité a-t-elle recours à un(e) pédopsychiatre ? 0 : non ; 1 : oui I__I

Si oui, C9a - De quelle manière votre maternité a-t-elle recours à ce professionnel ?

1 : En interne, avec un temps de travail dédié(e) à la maternité I__I
2 : En interne, sans temps de travail dédié à la maternité (cad ponctuellement, en cas de besoin uniquement)
3 : En externe, via un autre établissement de santé
4 : En externe, via une unité mobile
5 : En externe, via un Centre Médico-Psychologique (CMP)
6 : En externe, via des professionnels libéraux
7 : Autre, préciser : ……..

PRISE EN CHARGE PRÉNATALE

D1 - Les femmes qui ont une addiction au tabac peuvent-elles bénéficier d'une consultation dédiée ?

(plusieurs réponses possibles) 1 : oui, dans votre service I__I I__I
2 : oui, dans votre hôpital
3 : oui, avec un référent à l'extérieur de l'hôpital
4 : vous n'avez pas de circuit organisé

D2 - Les femmes qui ont une addiction à l'alcool peuvent-elles bénéficier d'une consultation dédiée ?

(plusieurs réponses possibles) 1 : oui, dans votre service I__I I__I

2 : oui, dans votre hôpital
3- : oui, avec un référent à l'extérieur de l'hôpital
4 : vous n'avez pas de circuit organisé

D3 - Les femmes ayant d'autres addictions *(à l'exclusion du tabac et de l'alcool)* **peuvent-elles bénéficier d'une consultation dédiée ?** *(plusieurs réponses possibles)* 1 : oui, dans votre service |__|__|
2 : oui, dans votre hôpital
3 : oui, avec un référent à l'extérieur de l'hôpital
4 : vous n'avez pas de circuit organisé

D4 - Les femmes qui souhaitent une consultation de nutrition peuvent-elles en bénéficier ?
(plusieurs réponses possibles) 1 : oui, dans votre service |__|__|
2 : oui, dans votre hôpital
3 : oui, avec un référent à l'extérieur de l'hôpital
4 : vous n'avez pas de circuit organisé

Si réponse 1 à 3, D4a- Cette consultation est-elle accessible ?
1 : Uniquement aux femmes diabétiques |__|
2 : A toute femme qui souhaite une consultation de nutrition

D5 - Vous arrive-t-il de refuser l'inscription des femmes à bas risque résidant loin de votre maternité ?
0 : non jamais |__|
1 : oui parfois
2 : oui systématiquement
3 : pas de système d'inscription à la maternité

Si 1 ou 2, **D5a - Pour quels motifs refusez-vous ces inscriptions ?**
1 : c'est la politique du service |__|
2 : vous refusez quand le nombre de femmes inscrites est déjà élevé
3 : autre, préciser : ……..

D6 - Dans votre service, les soignants proposent-ils aux femmes de préparer un projet de naissance ?
0 : jamais; 1 : rarement; 2 : souvent ; 3 : systématiquement |__|

D7 - La maternité a-t-elle recours à une assistante sociale ? 0 : non |__|
1 : oui, dédiée au service
2 : oui, dans l'établissement mais non dédiée au service

D8 - Avez-vous un dispositif spécifique pour faciliter la prise en charge des femmes enceintes en situation de précarité ou de vulnérabilité ? *(2 réponses possibles)*
0 : non |__|__|
1 : oui, une PASS (permanence d'accès aux soins) dans l'établissement, et recours systématique pour toutes les femmes concernées
2 : oui, une PASS dans l'établissement, mais recours non systématique
3 : oui, un autre dispositif (ex : partenariat avec une association, staff pluridisciplinaire . . .)
Précisez : ……..

Si oui (D8=3), **D8a - La maternité dispose-t-elle de liens formalisés par conventions avec les acteurs et partenaires de la précarité pour faciliter la prise en charge des publics précaires ?** 0 : non ; 1 : oui ; 2 : ne sait pas |__|

D9 - De quelle manière la PMI est-elle présente au sein de votre établissement ? *(plusieurs réponses possibles)*

0 : La PMI n'est pas présente au sein de votre établissement |__|__|__|
1 : Une personne de la PMI (sage-femme, puéricultrice,…) passe régulièrement pour faire le lien avec le personnel de votre établissement
2 : La PMI est présente au sein des Staffs pluridisciplinaires
3 : Les dépliants/plaquettes de présentation des PMI de la région sont distribués à toutes les parturientes
4 : Autre, préciser : ……

D10 - Votre établissement dispose-t-il d'un document de formalisation ou convention permettant de cadrer les modalités d'échanges et de liaison avec les services de la PMI ? 0 : non ; 1 : oui ; 2 : ne sait pas |__|

D11 - Informez-vous systématiquement les patientes sur le rôle et les moyens de contacter la PMI (Protection Maternelle et Infantile) de leur secteur ? 0 : non ; 1 : oui |__|

Si oui,
D11a - A quel moment du suivi des patientes cette information se fait-elle le plus souvent ?
(Deux réponses possibles)
1 : durant les consultations prénatales (par les professionnels de santé ou par des plaquettes d'information mises à disposition ou par des affiches) |__||__|
2 : en salle de naissance
3 : en suites de naissance (par les professionnels de santé ou par des plaquettes ou par des affiches)

D12 - Avez-vous un dispositif spécifique pour faciliter la prise en charge de populations non francophones ?
(*plusieurs réponses possibles)* 0 : non |__||__||__|
1 : Une consultation avec un interprète
2 : Un service d'interprétariat par téléphone
3 : Un service d'interprétariat via une liste de personnels
4 : Un recours ponctuel au personnel interne, sans liste
5 : Autre, préciser : ……

PRISE EN CHARGE EN SALLE DE NAISSANCE

E1 - Pour les femmes à bas risque obstétrical et souhaitant avoir un accouchement moins médicalisé, avez-vous un espace (ou salle) dédié et distinct des salles de naissances « classiques » ? (espace physiologique, salle nature...)
0 : non ; 1 : oui |__|

Si oui
E1a - De combien de salles disposez-vous ? |__|__|
E1b - Les femmes peuvent-elles accoucher dans ces salles ?
0 : non ; 1 : oui, dans toutes ; 2 : oui, dans certaines |__|
E1c - Ces salles disposent-elles d'une baignoire ?
0 : non ; 1 : oui, dans toutes ; 2 : oui, dans certaines |__|

Si ces salles disposent d'une baignoire, **E1c1- Les accouchements dans l'eau sont-ils autorisés ?** 0 : non ; 1 : oui |__|

E2 - Les sages-femmes libérales peuvent-elles réaliser les accouchements de leurs patientes dans vos salles de naissance (aussi appelé plateau technique) ? 0 : non ; 1 : oui |__|

PRISE EN CHARGE APRÈS LA NAISSANCE

F1 - Avez-vous une ou plusieurs personnes référentes pour l'aide à l'allaitement dans la maternité ? 0 : non ; 1 : oui |__|

Si oui,
F1a - A-t-elle suivi un DIULHAM ou a-t-elle une certification IBCLC, formation spécialisée en allaitement maternel? 0 : non ; 1 : oui |__|
F1b - Dispose-t-elle d'un temps dédié à la prise en charge de l'allaitement maternel (consultation, formation, visites spécialisées…) **?** 0 : non ; 1 : oui, un temps partiel ; 2 : oui, un temps plein |__|
F1c - Les mères peuvent-elles contacter cette personne par téléphone, ou la consulter, après la sortie de la maternité ? 0 : non ; 1 : oui |__|
F1d - Anime-t-elle des réunions d'équipes pour les professionnels (dont les aides-soignantes, auxiliaires de puériculture) afin de favoriser l'harmonisation des pratiques ? 0 : non ; 1 : oui |__|

F2 - En première intention, quel protocole utilisez-vous pour le dépistage néonatal de la surdité (1er et 2ème test lorsque le premier n'est pas concluant) **chez les nouveau-nés en suites de naissances** ?
0 : dépistage non pratiqué |__|
1 : potentiels évoqués auditifs automatiques (PEAA) puis PEAA
2 : oto-émissions acoustiques (OEA) puis OEA
3 : OEA puis PEAA
4 : autre, préciser : ……

F3 - Avez-vous mis en place une procédure de rattrapage pour les nouveau-nés qui n'ont pas eu le test (ni le retest si nécessaire) lors de leur séjour en maternité ? (Deux réponses possibles)

0 : non |__| |__|
1 : oui, les nouveau-nés reviennent dans le service
2 : oui, les nouveau-nés sont orientés vers une autre structure
3 : autre, préciser : ----------

F4 - A quel moment le dépistage sanguin néonatal systématique est-il réalisé pour les enfants qui sortent précocement ?

(Deux réponses possibles) 1 : avant la sortie de la maternité à J2 |__| |__|
2 : retour du nouveau-né à la maternité
3 : réalisation à domicile par une sage-femme libérale
4 : autre, préciser : ……..

F5 - Des visites à domicile sont-elles proposées après la sortie de la maternité pour les mères et les bébés qui vont bien ?

F5a - Par une sage-femme libérale dans le cadre d'une sortie précoce et du « PRADO » 0 : non ; 1 : oui |__|
F5b - Par une sage-femme libérale dans le cadre d'une sortie standard et du « PRADO » 0 : non ; 1 : oui |__|
F5c - Par une sage-femme libérale hors cadre du « PRADO » 0 : non ; 1 : oui |__|
F5d - Par une sage-femme de la maternité 0 : non ; 1 : oui |__|
F5e - Par une sage-femme ou puéricultrice de PMI 0 : non ; 1 : oui |__|
F5f - Autre, préciser : …… |__|

F6 - Une fiche de liaison « maternité/ville » (elle contient des informations médicales sur le déroulement de la grossesse, de l'accouchement et du postpartum à la maternité, y compris le compte-rendu d'hospitalisation) **est-elle systématiquement remise à la femme lors de sa sortie de la maternité ou bien transmise à la sage-femme ou au médecin qui assurera le suivi post-natal ?** 0 : non ; 1 : oui |__|

Si oui, **F6a -Sur cette fiche de liaison, mentionnez-vous les coordonnées d'un professionnel de la maternité que la sage-femme ou le médecin peut contacter si nécessaire** (pour avoir des informations du dossier, résultats d'examens, etc…) ? 0 : non ; 1 : oui |__|

Abbreviations and acronyms

ARS	Regional health agency (*Agence régionale de la santé)*
BMI	Body mass index
CI	Confidence interval
CMV	Cytomegalovirus
COVID-19	Coronavirus virus disease first identified in 2019, caused by the SARS-CoV-2 virus
DGOS	Directorate of health care supply
DGS	Directorate-General for health
DREES	Directorate for research, studies, evaluation and statistics *(Direction de la recherche, des études de l'évaluation et des statistiques)*
DROM	Overseas districts and regions *(Départements et région d'outre-mer)*
ENP	National perinatal survey *(Enquête nationale périnatale)*
EPIFANE	Longitudinal study in France of child's eating and nutritional status during their first year of life (*Etude longitudinale en France de l'alimentation et de l'état nutritionnel des enfants pendant leur première année de vie)*
ÉPOPé	Obstetric, perinatal, and pediatric reserarch team (*Equipe de recherche en épidémiologie obstétricale, périnatale et pédiatrique)*
EPDS	Edinburgh post-partum depression scale
EPP	Early prenatal interview *(Entretien prénatal précoce)*
FGR	Fetal growth restriction
HAS	French national authority for health *(Haute autorité de santé)*
HLQ	Health literacy questionnaire
INSERM	National institute for health and medical research *(Institut national de la santé et de la recherche médicale)*
JORF	*Journal official de la république française*
PCEA	Patient controlled epidural analgesia
PMI	Program for protection of mothers and infants (*Protection maternelle et infantile*)
PMSI	Medical information system (including discharge summaries) (*Programme de médicalisation des systèmes d'information*)
PRADO	Support program for return home (*Programme d'accompagnement du retour à domicile)*
RSA	Active Solidarity Income (*Revenu de solidarité active*)
SNDS	National system of health data (*Système national des données de santé*)

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